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OUR COLONIAL ISSUE.

THE Colonial Issue of THE CHEMIST AND DRUGGIST will be published on Saturday, April 27. It is intended to extend and foster business relations with the British Colonies and India. Already these take three-fifths of our annual exports of medicines, the value of this share now being over a million per annum. Besides, there are millions in other goods handled by our readers, such as chemicals, sundries, perfumery, and soaps. The circulation of the issue of April 27 should be taken advantage of by every business-house in the home trade, who should secure space as early as possible by writing to the Publisher, THE CHEMIST AND DRUGGIST, 42 Cannon Street, London, E.C.

PRICE-LISTS AND CIRCULARS.

THE CHEMIST AND DRUGGIST is the pioneer of the method of distributing price-lists and circulars to the trade in its Summer and Winter Issues. The system has been in force for more than thirty years, and is as effective as it is popular. Distribution to the best buyers in the world is ensured, and that is not the case when price-lists are sent singly by post—*e.g.*, reports received from Australasia show that "tons" of price-lists and dutiable matter on which the tax has not been paid are destroyed by the authorities. The Summer and Winter Numbers of THE CHEMIST AND DRUGGIST containing such price-lists and circulars are not so treated, because the demands of the Customs are complied with, hence the copies are promptly delivered to the advantage of advertisers. The next opportunity for sending out price-lists and circulars will be with the Summer Number to be published on July 27, 1907. The Publisher invites up-to-date firms to write to him at the Head Office for conditions and terms.

Summary.

The subjoined paragraphs give the gist of the more important matters in this issue, with the object of showing at a glance what has happened during the week. See also "Contents" in the first column.

THE PHARMACY BILLS are no further forward. See p. 446 and p. 450.

THE BILE BEAN Co.'s appeal has been further postponed by the House of Lords (p. 440).

MR. B. OWEN JONES, a well-known Transvaal chemist, has been elected to the new Legislative Assembly (p. 438).

THE VINOLIA Co.'s preference shareholders are offered in exchange preference shares in Lever Bros., Ltd. (p. 441).

WE group together this week the contracts for medicines, etc., to Irish Guardians and those arranged by English local authorities (p. 439).

PROFESSOR BERTHELOT, the eminent French chemist, died on Monday a few minutes after his wife (p. 443). Mr. R. Warington, F.R.S., is also numbered among the dead (p. 444).

THE BELFAST CORPORATION has been distributing disinfectants to the public in all sorts of bottles unlabelled, and the Chemists' and Druggists' Society has sent a deputation about the matter (p. 436).

WE comment upon the Company-Doctors and Company-Dentists Bills. Absolute prohibition of company practice is the principle of the former, but as to the latter, we ask, may companies use the title? (p. 450).

PRACTICAL points for pharmacists which should be considered were submitted at Manchester by Mr. Blain (p. 453), and at Kingston-on-Thames Messrs. Barnett, Nethercoat, and Bunker dealt with allied subjects (p. 457).

WE report dispensing problems discussed by Mr. Buck at Liverpool (p. 451), by Mr. Crombie at Glasgow (p. 455), and by Mr. Duncan at Edinburgh (p. 456). They are all well worth the attention of dispensing chemists.

THE latest particulars about the Canadian Patent-medicine Bill are given on p. 437. It seems likely that it will be withdrawn, and the Minister of Inland Revenue has intimated that the stamp-duty clause will be withdrawn.

MR. GALL, the Fraserburgh chemist, has succeeded in his appeal to the Court of Session, which has reversed the Sheriff-Substitute's judgment, and ordered Dr. Slessor to pay Mr. Gall 30*l.* as damages. Lord Low's judgment is given in full on p. 440.

THE application of the Workmen's Compensation Act, 1906, to chemists was discussed by Mr. Suggitt at Leeds and by Mr. Percival at Liverpool (p. 452). We also comment upon it, and tell what the insurance companies have decided about conditions and rates for chemists (p. 449).

MANY chemists pay more income-tax than they need to. That is the opinion of Mr. Shacklady, of Liverpool, who is an experienced accountant, and knows all about chemists' book-keeping. He shows how to prepare the requisite financial statement for the I.R. authorities (p. 451).

DOES the chemist of to-day get as much out of life as his predecessor did? Chemists at Stoke by a casting vote say "No." In this connection we discuss modern trading, showing the changes in customers' methods which involve change in retail conditions of buying and selling (p. 451).

IN the markets Norwegian cod-liver oil is the feature of the week, prices having advanced rapidly. Opium, lemon oil, balsam peru, copper sulphate, and citric acid are all higher. Refined camphor, castor and aniseed oils, and saffron are firmer. Isinglass and cantharides are cheaper. Quinine is being depressed (p. 461).

GALENICALS figure well in our pages this week. Mr. Naylor read a suggestive paper to the Notts Association on Thursday (p. 453); Mr. Alcock gave notes on testing them to Worcester chemists (p. 454); Mr. Currie, at Glasgow, showed how granular effervescent can be made on the "while-you-wait" principle; and in West London Mr. Mather criticised B.P. methods (p. 454).

MESSRS. ELLIMAN, SONS & Co., last week asked in the *C. & D.* if protection of proprietaries is worth while? They feel that it does not prevent substitution. In reply to this several correspondents say that as it does not pay to handle unprofitable goods retailers are bound to push the sale of the most profitable (p. 465). The Bournemouth Association has thanked Messrs. Elliman, and asks them not to withdraw protection (p. 455).

Corner for Students.

CONDUCTED BY LEONARD DOBBIN, PH.D.

Students, please note. All communications should be addressed to the Editor of "The Chemist and Druggist," 42 Cannon Street, London, E.C.

All communications and reports must bear the names and addresses of the writers, not necessarily for publication. The reports of those who ignore this rule are liable not to be dealt with.

QUALITATIVE ANALYSIS.

A MIXTURE of not more than three salts will form the subject of the next exercise in qualitative analysis. The mixture will comprise acids and inorganic bases occurring in the British Pharmacopœia, and is to be submitted to a thorough systematic examination, all its constituents are to be detected, and proof is to be given that the substances detected are the only constituents of the mixture.

Students' applications for portions of the mixture of salts (accompanied by a stamped and addressed envelope, not a stamp merely) will be received up to Tuesday, March 26, and the samples will be posted on the following day.

Students' reports will be received up to Saturday, April 6. Each report should contain a concise account of the work done, and should include a list of the constituents detected. In the list any substance regarded as an accidental impurity should be distinguished from the essential constituents of the salts composing the mixture.

SPECIAL NOTE.—The analysis announced above forms the closing exercise in the analytical tournament for the current winter session. The usual monthly first and second prizes in this series of analyses will be awarded only to apprentices or assistants who are preparing for the Qualifying examination of the Pharmaceutical Society of Great Britain or of Ireland, which fact *must be attested on their reports*.

English News.

Local Newspapers containing marked items of news interesting to the Trade are always welcomed by the Editor.

Brevities.

Mr. Morgan W. James, chemist and druggist, Cowell Street, Llanelly, has obtained a wine-licence.

An application by the Timothy White Co., Ltd., chemists, for an off wine-licence for their premises at St. Nicholas Street, Truro, has been refused.

At a fire at the premises of Messrs. Briggs & Son, chemists, Hoxton Street, London, N., on March 19, two men were rescued by the firemen and a constable.

Extensive alterations are being made in the shop of Boots, Ltd., in Church Street, Blackburn. An entirely new front has been put in, and the interior of the shop has been lengthened.

The Goldsmiths' Company have made a donation of 10,000*l.* to the Lawes Agricultural Trust (Rothamsted Experimental Station) to be devoted to research in connection with the soil.

In connection with the Census of Production Act the President of the Board of Trade has appointed a General Committee to advise upon the general scope of the census and the lines upon which the information required shall be obtained.

During the hurricane of wind which swept over the country last week-end the Halifax district suffered severely. Among several shopkeepers who sustained damage were Mr. Gibson Dixon and Mr. J. Swire, of King Cross; the latter gentleman had a plate-glass window blown out.

An action was brought in Newport County Court on March 14 by the Provincial Advertising Co., of Sheffield,

against Mr. George Shelley, chemist and druggist, 232 Corporation Road, Newport (Mon.), for 2*l.* 12*s.* for advertising. After seeing an alleged "agreement" signed by Mr. Shelley, Judge Owen non-suited the plaintiffs and allowed the defendant's costs.

Mr. G. Claridge Druce has been appointed Hon. Secretary to the Oxford Historical Pageant, which is to be held in Christ Church and Magdalen Meadow from June 27 to July 3, under Royal patronage. It promises to be one of the most successful yet organised.

At Birmingham County Court on March 19, an action was brought by Thomas Savage against Philip Harris & Co., manufacturing chemists, Birmingham, to recover eleven guineas in lieu of a quarter's notice, which, he contended, was due to him under an agreement. The defendants said reasonable notice had been given, and Judge Bray gave judgment for defendants.

At an inquest held at Exeter on March 18 on the body of a child two months old, it was stated that the child was taken to the shop of Mr. C. Botting, chemist and druggist, St. Sidwell's, where Mr. C. F. Gibson, an assistant, prescribed a cough-mixture for it. This, however, had nothing whatever to do with the death, and the jury returned a verdict of death from natural causes.

Mr. William Woolley, J.P., manufacturing chemist, Blackburn, was one of the passive resisters who appeared before the Blackburn Magistrates on March 15, he having deducted 1*l.* 1*d.* as the educational portion of his Poor-rate. Mr. Woolley acted as spokesman for twenty other resisters, including clergymen, manufacturers, solicitors, and salesmen, and the usual orders were made.

Easter Holidays.

Messrs. T. & H. Smith, Ltd., of 22 City Road, London, E.C., will close their offices and warehouse from March 28 until April 2.

The offices, warehouses, etc., of Messrs. Burroughs Wellcome & Co. will be closed from Thursday evening, March 28, until Tuesday morning, April 2.

THE CHEMIST AND DRUGGIST will go to press a day earlier next week (Wednesday, March 27), and the offices at 42 Cannon Street, London, E.C., will be closed from Thursday night, March 28, until Tuesday morning, April 2.

Early Closing.

A Shop-hours Act closing-order has been issued by the Blackburn Town Council for chemists and druggists and patent-medicine vendors, the closing-hours being 9 p.m. on Monday, Tuesday, and Wednesday; 1 p.m. on Thursday; 9.30 p.m. on Friday; and 11 p.m. on Saturday, with exemptions for the following days: the day before Good Friday, the four week-days before Christmas Day, the week-day before New Year's Day, and the Wednesday, Thursday, Friday, and Saturday before the local August holiday week.

Electrolytic Disinfecting-fluid.

According to Dr. F. W. Alexander, the medical officer of health for the Borough of Poplar, the production of disinfecting-fluid by electrolysis (which was begun in the borough early last year) has been a success. During the year 17,000 gals. of fluid was manufactured of a strength of between 4.0 grams and 4.5 grams of available chlorine per litre at a net cost of 597*l.* 14*s.* 3*d.* [The average annual cost of disinfectants for the three previous years was 534*l.*—EDITOR.]

Sheffield Notes.

Professor W. Palmer Wynne has so far recovered from his recent rather severe illness as to be able to resume his duties.

Yet another association! This time it is the herbalists in Sheffield and district who have formed themselves into an association for the protection and advancement of their interests.

Mr. J. Gilbert Jackson, chemist and druggist, refused to clear the snow off the unpaved portion of the pathway in front of his premises as a protest against the City Council's neglect, and when he was summoned before the Magistrates they promptly agreed with him.

The City Council, at their meeting last week, approved a recommendation of the Improvement Committee that the

sum of 3,350*l.* be paid to the trustees and beneficiaries under the will of the late Mr. Henry Crawshaw, chemist and druggist, as purchase-money and compensation (including all costs) "for their leasehold interest in a plot of land with the saleshop and other messuages erected thereon" in Shalesmoor, and acquired for street-widening purposes. These alterations will necessitate the removal of another of Sheffield's old-time pharmacies, the business formerly carried on by the late Mr. Crawshaw being now in the hands of Mr. H. G. Watson in the same premises.

The annual meeting of the Sheffield Pharmacy Athletic Club was held at 118 The Moor, Sheffield, on March 18, Mr. R. D. Douglas (President) in the chair. The report of the Hon. Secretary (Mr. A. Preston) showed that out of twelve matches played during last season eight had been won and four lost, the greatest success being against the Notts chemists, when everyone playing for the Sheffield team was a member of the club. The prizes presented by Mr. G. J. R. Parkes and Mr. J. Hull for the best batting and bowling averages have been carried off by Mr. Stathers and Mr. Weatherall. The Hon. Treasurer (Mr. Whitworth), in his annual statement, showed a credit balance of 4*l.* 19*s.* 8½*d.* Both reports were adopted. Mr. J. B. Pater was elected President of the club for the ensuing year, and Messrs. J. G. Jackson, R. D. Douglas, P. Carr, A. Russell Fox, and H. G. Williams Vice-Presidents. Mr. A. Preston and Mr. F. W. Whitworth were re-elected to the respective offices of Hon. Secretary and Treasurer, and the following were appointed a committee of management—viz., the President, Vice-Presidents, Secretary, Treasurer, Captain, and Vice-Captain, with Messrs. J. T. Appleton, Campbell, and Dowson.

Drugs in Bradford.

The annual report of the Bradford city analyst states that fifty samples of drugs had been analysed during the year. A sample of liquid ammonia was found to contain only two-thirds of the proper amount of ammonia. A sample of headache-powder was found to consist entirely of acetanilide. A sample of pepsin was found to be very deficient, and two samples of liniment of camphor contained only one-fourth and one-third of the proper amount of camphor.

Returning Home.

At the Guildhall Police Court, London, on March 16, John Andrew Priestley, chemist's assistant, was charged before Alderman Sir Walter Vaughan Morgan, Bart., with attempting to commit suicide by taking vermin-killer (see *C. & D.*, January 19, p. 70). Priestley, who belongs to Bradford, came to London in search of employment, and, being unsuccessful, became depressed and took the poison. In reply to the Alderman, he said he believed he could now get employment near his home in Yorkshire. The Alderman bound him over to be of good behaviour for three months, and gave him a sovereign from the poor-box to assist him to get home.

The Chemist's Bequests.

The late Mr. John Eyton Williams, formerly a chemist and druggist at Chester, left a large fortune, and in his will bequeathed 10,000*l.* each to the University College of North Wales and to the University of Wales, on condition that religious tests are applied to all students. Under their charters, it was said, neither college could apply any religious test to students; but on behalf of the Universities it was contended that the will only ought to be admitted to probate, the other document referring to the conditions, in law, forming no part of the will. The President of the Probate Division of the High Court has held, however, that the document referred to was incorporated in the will, and has granted probate accordingly. By this decision in all probability the two University Colleges will be unable to accept their legacies.

The Week's Poisonings.

No fewer than six of the thirteen fatalities that have been occasioned by poison during the past week were due to unscheduled poisons. The popular hydrochloric acid, procured so easily, caused four deaths—two suicides and two misadventures. The suicides were Joshua Mabley (20) and Charlotte Sutter (20), of Hoxton; while the acid standing in a jam-jar was mistaken for water by Emily Grace

Smith, of Old Kent Road, London; and a draught of the same corrosive was taken by Samuel Craigie, of Manchester, in mistake for medicine. Joseph Butler, a Barrow man, was poisoned by drinking liquid ammonia, whether with intent to commit suicide or not was not determined.—An epileptic French polisher at Sunderland, named William Henry Johnson, poisoned himself with a mercurial ointment which he had obtained from the infirmary for his leg.—"Pneumonia accelerated by a dose of laudanum and an overdose of strychnine" caused the death of Johnson Stephenson (54), of Middlesborough.—A verdict of "Felo-de-se" was returned at Paddington at an inquest on John Gabriel Erickson (57), a gardener, who poisoned himself with oxalic acid.—Sarah White (43), a shipbuilder's wife, living at Brighton, committed suicide with carbolic acid.—Frederick John Cundy (49), a professor of singing, residing at Sydenham, poisoned himself with potassium cyanide at St. Paul's railway station, London.—Edward Dolby (55), a male nurse, was found dead near Leicester, with a bottle which had contained laudanum near by.—John Henry Taylor (62), a compositor living at Herne Hill, poisoned himself with prussic acid.—At Blackburn on March 21 an inquest was held regarding the death of Mrs. Ellen Richardson (29), the wife of a local wholesale druggist, whose evidence showed that she had taken a drink of solution of potassium cyanide in mistake for water.

Irish News.

Local Newspapers containing marked items of news interesting to the Trade are always welcomed by the Editor.

Personal.

Mr. Jas. Hill, pharmaceutical chemist, met with a serious accident on March 16 while hunting with the Strabane Harriers.

Aerated-water Bottles.

The Tipperary aerated-water maker who was in the Dublin High Court restrained from using the bottles of other makers (*C. & D.*, March 16, p. 409) has had other orders made against him on the application of Messrs. Hovenden & Orr, Messrs. Cantrell & Cochrane, and O'Brien & Co.

Soda-crystals Case.

A case in which Mr. Guyton Butler (representing Messrs. Brunner, Mond & Co., Northwich) is prosecuting a chandler named Walsh for selling soda crystals with a false description was mentioned in the Dublin Southern Police Court on March 13. On the application of the prosecutor's solicitor the case was adjourned for a week.

Irish Washing-soda.

At the last meeting of the Dundalk Guardians two tenders were received—one at 3*s.* 9*d.* per cwt. and one at 4*s.* 11*d.*—for Irish washing-soda. The question was raised as to where Irish soda is made, but no one seemed to know—a member suggesting that the Guardians could find out from the Irish Industries Association. The contract was given to the 4*s.* 11*d.* man.

The Drug-traveller Wins.

Mr. J. P. King, a traveller for Mr. S. Gibson, druggist, King Street, Belfast, some time ago obtained judgment in the County Court for 7*l.* against an hotel proprietor for money stolen from his bag. On March 16 an appeal of the defendant to the co. Donegal Assizes was heard, but Mr. Justice Madden confirmed the finding of the County Court Judge.

False Pretences Charge.

On March 19, in the Dublin Northern Police Court, before Mr. Mahony, Divisional Magistrate, James McClean was charged with obtaining goods by false pretences (see *C. & D.*, March 9 and 16). This time the charge was of having obtained 7*l.* worth of "Pinelyptus Pastilles" from Mr. George Henry Proctor, of Newcastle-on-Tyne, in November and December last. Mr. Proctor gave evidence of having supplied the goods, after which Mr. Tobias, solicitor for the prosecution, asked for an adjournment for a week. Mr. Mahony remanded McClean, and said he would accept bail—accused in 100*l.* and two sureties of 50*l.* each.

Distribution of Disinfectants.

At the meeting of Belfast Corporation Public Health Committee on March 14, a deputation, representing the Chemists and Druggists' Society of Ireland, appeared to complain of the manner in which the free distribution of disinfectants is being made by the Corporation. The deputation consisted of Messrs. S. Gibson, J. D. Carse, S. Suffern, and W. Haslett. Messrs. Gibson and Carse, who acted as spokesmen, pointed out that these poisonous liquids are being distributed to every person calling for them, often in porter and gin bottles. The disinfectants are unlabelled, and it is quite possible that serious results may follow. The poisons are being given also to people who are very well able to pay, and the ratepayers are put to considerable expense. Mr. Geo. Ward, chief executive sanitary officer, stated that last month 170*l.* worth of disinfectants was given out at the disinfecting-station. Alderman Dr. King-Kerr, J.P., Chairman of the committee, said that while he sympathised with the remarks of the deputation, he was glad to hear that the people were taking steps towards keeping their homes in a healthy condition. It would be a very difficult thing to differentiate between persons entitled or otherwise to receive disinfectants, but precautions would be taken to prevent the privilege being abused. Children under fourteen years of age would not be supplied.

Scotch News.

Local Newspapers containing marked items of news interesting to the Trade are always welcomed by the Editor.

Personal.

Mr. David Storrar, chemist, Kirkcaldy, has obtained the chief prize, value 10*l.*, at the recent prize-drawing held under Art Union principles at Stirling Fine Art Exhibition.

The employes and staff of Mr. Alexander Robertson, wholesale and retail chemist, Oban, have presented his daughter, Dr. Margaret H. Robertson, with a solid silver tea-service in anticipation of her approaching marriage to Mr. Malcolm Hutton, M.A., M.B., Ch.B., B.Sc., youngest son of Mr. James Hutton, of Ardlin.

Business Changes.

Mr. Cruckshank has purchased the business of the late Mr. J. Kerr, chemist and druggist, at Municipal Buildings, Greenock.

Dr. Watt, Port Glasgow, has sold his chemist's shop in Princes Street to Mr. Sangster, chemist, late of Bruntsfield Links, Edinburgh.

Mr. Robert Dickson, chemist and druggist, has been appointed manager of the drug department shortly to be opened by the Alloa Co-operative Society, Ltd.

Mr. R. Macgregor, chemist and druggist, has bought the branch business at 133 Bruntsfield Place, Edinburgh, belonging to Mr. A. McCutcheon, chemist and druggist.

Aberdeen.

During last week what is termed a Virol demonstration was given at the shop of Mr. A. W. Shirras, chemist, Kittybrewster. In one of his windows was a display of Virol preparations, and inside a lady was in attendance to explain their qualities and give free samples. This week the "Virol lady" transfers the sphere of her labours to Arbroath.

Great satisfaction was expressed by chemists here on receipt of the result of what had come to be known as "the Fraserburgh case." With regard to the position of chemists and doctors, Aberdeen is very fortunate. Doctors' "special" chemists are practically unknown; while out of about eighty medical men practising in the city, only half-a-dozen keep "open shop." This is very satisfactory, but local chemists still have a grievance—namely, the prescribing of proprietaries by doctors. How to get over this is a question that is taxing the minds of a good few of them just now.

Edinburgh.

Cotton-wool is selling as low as 10½*d.* and 1*s.* per lb.

Mr. George Cowie, chemist and druggist, has removed to new premises, 37 Dublin Street.

At the annual meeting of the Scottish Anti-Tobacco Society last week, Mr. J. Rutherford Hill, in moving the

adoption of the annual report, said that three whiffs of a cigarette are sufficient to produce symptoms of "tobacco heart."

The New Cumnock man named Brown has been found guilty of murder by poisoning with strychnine in shortbread, and has been ordered to be detained in an asylum as being insane. Mr. J. W. Sutherland, managing director of Frazer & Green, Ltd., pharmaceutical chemists, Glasgow, deposed that Brown had been a customer for ten years and had regularly purchased a bromide-mixture. Brown purchased 1 oz. (437½ grains) of strychnine in May 1906 saying that it was for the purpose of killing rats. The strychnine found in the icing differed in crystal, however.

Glasgow.

Most of the co-operative stores in Glasgow are now retailing drugs.

Business is somewhat flat again. This state of affairs is attributed partly to the unsettled condition of the weather.

There is a nice show of toilet-soaps in one of the windows of Mr. John Foster, chemist and druggist, Cambridge Street.

Pharmacy students are working under a high tension at present, in view of the approaching Edinburgh examinations.

A petition for cessio has been lodged with the Sheriff of Lanarkshire, at the instance of S. Claber & Co., Ltd., manufacturing perfumers, 28 Canal Street, Manchester, against Frank Heap, manufacturing chemists' agent, 44 Dudley Drive, Hyndland, Glasgow, and the Sheriff has appointed Frank Heap to appear for examination in the County Buildings, Glasgow, on April 8, at ten o'clock.

Edinburgh Pharmacy Athletic Club.

The sixteenth annual meeting was held in 36 York Place on Monday evening, March 18, Mr. D. S. Napier (President) in the chair. The Secretary submitted his report, which showed the Club to be prosperous. The membership stands at ninety. The Treasurer reported that the income was over 100*l.*, and a balance of 24*l.* was over. The following office-bearers were unanimously elected: Hon. President, Mr. J. T. Coats; President, Mr. Geo. Somerville; Vice-President, Mr. Geo. Hadden; Secretary, Mr. J. Hossack, 10 Torphichen Place; Assistant Secretary, Mr. W. H. Chambers; Treasurer, Mr. D. S. Napier; committee, Messrs. J. Dickson, J. P. Gibb, A. Mallen, Jas. Muir, J. Forrest, J. Taylor, and C. C. Marsden; Auditors, Messrs. R. K. Kinninmont and G. H. C. Rowland. The annual subscription for apprentice members was fixed at 1*s.* A guinea was voted to the Pharmaceutical Benevolent Fund.

French News.

(From the "C. & D." Paris Correspondent.)

SERIOUS FIRE.—On Monday afternoon last the Driat chemical-works at Croissy, near Paris, were partially destroyed by fire. The loss is estimated at 200,000*fr.* (8,000*l.*).

AN ANTIDOTE TO STRYCHNINE.—At the last meeting of the Paris Academy of Medicine a letter was read from the French Consul at Batavia giving details of certain plants of the island of Java, which appear to constitute an antidote to strychnine. The letter and certain documents which accompany it have been referred to a committee.

THE GENERAL ASSOCIATION OF FRENCH PHARMACISTS has, through its President (M. Vaudin), formally thanked MM. Mirman, Limouzain-Laplanche, Cazeneuve, and Morel (Senators and Deputies) for supporting the claims of the Association in modifying the decree of July 23. New efforts are to be made to obtain this modification.

HOSPITAL PHARMACISTS.—The 1907 competitive examinations for pharmaceutical students desirous of entering the Paris hospitals as "internes," or assistant house-pharmacists, were held on March 13 at 47 Quai de la Tournelle, Paris. The "preliminary" consisted in the identification of twenty plants or drugs (five minutes, twenty marks) and of ten medicaments (ten minutes, twenty marks), one of these latter being selected by the examiners, and the candidate was required to describe its preparation. The real examination consisted of a ten-minutes' oral test (pharmacy and chemistry), with ten minutes extra for reflection, and three hours' writing (same subjects, with natural history added).

A SMALLPOX SCARE.—The epidemic of black smallpox which has been prevalent in the north of France, and especially at Dunkirk, has produced a mild scare in Paris, where re-vaccinations are the order of the day, as indeed almost everywhere in France. The supply of vaccine has been plentiful, and so far the epidemic has been kept well in hand. A travelling correspondent, writing from Lille, says: "The cases of black smallpox at Dunkirk seem to have aroused a great deal of attention. The walls of the town are covered with small posters issued by the authorities stating the establishments where re-vaccination is gratuitous, one of these being the Pasteur Institute. In Roubaix and district some of the pharmacists have notices in letters 6 inches long on their windows reading "Vaccine Frais."

SIC TRANSIT.—The old historical drug-houses of the rue des Lombards, Paris, of which the quaint signs and façades were illustrated and described a few years ago in the *C. & D.*, are one by one disappearing under the new conditions of business. The "Golden Beard," where worthy Pierre Pomot published his work on *Materia Medica* in 1695, disappeared two or three years ago, the business being "bought by M. Hennequer, of the "Golden Mortar" pharmacy, just opposite. A circular has recently been issued stating that M. Hennequer has eeded his business to the "Pharmacie Centrale des Lombards." M. Longuet, the proprietor, has already acquired Dubail's historic house—a pharmacy founded in 1709. It is said that one of the former owners of this business made it a condition of sale that the name of the pharmacy should never be used in newspaper-advertising, which he considered lowering to the dignity of the profession. Needless to say, this was many years ago.

Japanese Gittings.

(From the "C. & D." Correspondent.)

THE OSAKA AND KOBE MATCH-MANUFACTURERS are suffering from a scarcity of potassium chlorate, the stocks being concentrated in the hands of Messrs. Iwai & Co., of Osaka.

IN THE JAPANESE DIET Dr. S. Yamane suggested that five pharmacists or scientists be appointed to represent Japan at the International Congress of Sanitary Science to be held in September next.

MR. SANKYO SHOKWAI, the representative of Messrs. Parke, Davis & Co., of Detroit, Mich., at Tokyo, recently entertained to dinner at Iyomon, Tokyo, a party of pharmacists, medical men, and other scientists.

MR. CHOJIRO INAGAKI, an Igaku-shi (graduate in medical science) of the Tokyo Imperial University in 1904, has won a gold medal and a prize of 1,000m. at the Heidelberg University, where he is studying medicine, for an essay on "Albumen in Cells." Mr. Inagaki is the first Japanese prizeman at Heidelberg.

CELLULOID-MANUFACTURE IN JAPAN.—The Nippon Celluloid and Artificial Silk Co., Ltd., which was registered in London on December 4, 1906, has acquired ground in Japan for its factory. The nominal capital of the company is 4,000,000 yen (400,000*l.*), and consists of 80,000 ordinary shares of 5*l.* each (one-third paid up), and 2,000 deferred shares of 1*l.* each. The company has adopted an agreement with the Dai Nippon Manufacturers, Ltd., and is to carry on the business of manufacturers and dealers in celluloid, cellulose, natural and artificial fibres of all kinds, silk weavers and mercers, manufacturing chemists, etc. The registered office is Spencer House, South Place, Finsbury Pavement, London, E.C. Our Japanese correspondent informs us that the company intend to make 3 tons of celluloid and a ton of artificial silk daily.

CHEMICALS IN JAPAN.—The demand for soda ash, caustic soda, potassium chlorate, etc., in Japan is annually increasing, says the "Toyo Yakuho." So far foreign countries have supplied all the chemicals requisite in paper, soap, glass-making, etc., but, as was announced in the *C. & D.* of March 9, p. 360, a company, with a nominal capital of two million yen (200,000*l.*), has been formed to manufacture caustic soda, bleaching-powder, carbide of calcium, etc., by electrolysis. In view of this fact, the amounts of

imports in 1905, representing cattie of 1½ lb., may be of interest: *Caustic soda*—England, 16,987,729; America, 78,131; other countries, 2,630. *Soda ash*—England, 42,335; America, 16,410,996. *Potash chlorate*—Belgium, 42,333; France, 1,042,303; Germany, 1,448,045; and England, 1,960,789. *Sodium bicarbonate*—all countries, 3,528,846.

Canadian News.

(From the "C. & D." Correspondent.)

FRAUD ALLEGED.—E. K. Rodden, proprietor of the German Pill Co., with offices in Toronto and Buffalo, was on March 7 committed for trial on a charge of using the mails for fraudulent purposes.

IN THE QUEBEC LEGISLATURE a long discussion took place on March 6 with reference to the Medical Bill, which would extend the medical course to five years, instead of four as at present, and would prevent practice by Christian Scientists and osteopaths. All the doctors in the House gave their views, and nearly all of them were in favour of the five-year clause, but it was defeated.

ORGANISATION OF THE "ACADEMY OF MEDICINE, TORONTO," is practically completed after an agitation extending over several years. The new association will have its headquarters in the Ontario Medical Library Association building, in Queen's Park, but plans have been made to raise \$50,000 among the members of the profession in Toronto, and a big structure will be erected.

THE PATENT-MEDICINE BILL.—A deputation of about sixty retail druggists from Montreal, Ottawa, and other places waited upon the Hon. Mr. Templeman, Minister of Inland Revenue, this morning, writes our Canadian correspondent on March 8, and vigorously protested against a number of provisions in the Bill respecting registration and sale of proprietary medicines now before the House of Commons. They asked that the clauses relating to a stamp-tax on each bottle be eliminated as bearing too heavily on retailers, and that the Bill be postponed until next Session pending revision of some clauses which would, if enforced, work great hardship to druggists all over Canada. Mr. Templeman intimated that the Bill would be amended so as to strike out the clauses relating to the tax, that provision would be made to meet objections as to special cases brought up by the deputation, and that ample time would be given to druggists to make necessary arrangements before the Bill came into force. As to the question of holding it over till next Session, pending further conferences with representatives of pharmaceutical associations, in order to obviate some of the objections now taken, he promised to bring the matter before the Government.—Another report states that the Minister promised a large deputation representing the retail druggists of Quebec and Ontario and the Dominion Retail Association that the second reading of the Bill, which was to have taken place on March 11, would be left over for a week in order that the measure might be more fully considered by the Department and by the trade. The druggists in the meantime have selected a committee representing the different provinces to confer with the Department. The imposition of the stamp-tax was the principal objection put forward by the delegates, and Mr. Templeman admitted that he was not altogether in favour of it himself, but he could promise nothing until he consulted his colleagues.—The proposals of Mr. D. W. Bole, M.P., President of the National Drug and Chemical Co., who is opposed to the Bill, are attracting some attention. He holds that if a revenue is necessary for the purpose of administering the Act it should be paid by the manufacturer, and not by the retailer. He proposes a licence of \$50 or more upon every patent-medicine house in Canada, and upon foreigners doing business in Canada, but the retail druggist would be exempt to the extent of, say, 10 gross of each of his local preparations. The assumption is that a druggist doing business under provincial laws is qualified to put up such preparations without prejudice to the public interest, but if the sale exceeds 10 gross it is assumed that he is manufacturing beyond local needs, and he then becomes subject to licences.

Australasian News.

Commonwealth.

THE A.P.C.—It is proposed to continue the Australian Pharmaceutical Conference, and it is suggested that the Australian Association for the Advancement of Science should establish a pharmaceutical sub-section of Section C (chemistry). The difficulty is that the Association can only concern itself about scientific matters, and the pharmaceutical sub-section would like to discuss trade-matters as well as scientific problems.

New South Wales.

THE FRIENDLY SOCIETIES' DISPENSARIES of New South Wales have arranged to form an association for mutual benefit and protection. At the meeting of representatives at which this was decided one of the speakers said dispensaries were confronted with threats and penalties, and on that score alone should be united. They might perhaps even be able to send a special representative to Parliament. If the dispensaries were formed into a union, it would be possible to open a house of their own and obtain their drugs 50 per cent. cheaper than at present.

New Zealand.

IMPORTATION OF OPIUM.—The charge against Mr. W. H. Dawson, chemist, Auckland, of importing opium in a form suitable for smoking (see *C. & D.*, January 26, p. 110) was resumed on December 23, 1906, when the Stipendiary Magistrate said that if he were convinced that any man, especially a European, had imported opium with the intention of selling it to Chinamen for smoking-purposes, he would have no hesitation whatever in inflicting the maximum penalty. From the evidence brought forward the impression left on his mind was that the circumstances were of a highly suspicious nature, and in regard to the bismuth subnitrate having been found at the bottom of the jar below the opium, he was not satisfied that it was altogether a pure accident. On the charge under the Opium Prohibition Act the defendant was fined 100*l.*, and 16*l.* 2*s.* costs, and on the charge of making a false declaration a fine of 50*l.*, and costs 3*l.* 10*s.*, was imposed. The two alternative charges of importing restricted goods, and with being concerned in a fraudulent attempt to evade the Customs duties, were withdrawn. Mr. Dawson has since inserted a statement in the newspapers which seeks to prove that there has been a miscarriage of justice in this case.

South African News.

(From the "C. & D." Correspondents.)

Note.—"The Chemist and Druggist" is regularly supplied by order to all the members of all the Pharmaceutical Societies in British South Africa, viz.:

South African Pharmaceutical Association.
Pharmaceutical Society of Cape Colony.
Natal Pharmaceutical Society.
Transvaal Pharmaceutical Society.
Rhodesia Pharmaceutical Society.
Northern District Chemists' Association.
Pharmaceutical Society of Orange River Colony.

Cape Colony.

A NEW COLONIAL CHEMIST.—Harold John Greening, chemist and druggist, Cape Colony, 1906, has been authorised to practise in the Colony.

CHARGE OF FALSE PRETENCES.—Henry Vane Tempest, *alias* Thomas Thacker, describing himself as a veterinary surgeon, was remanded by the A.R.M. at the Cape Town Police Court on February 26, on a charge of obtaining by false pretences goods to the value of 47*l.* 19*s.* from a Cape Town firm.

THE EMBEZZLEMENT CHARGE.—After considering the further evidence in the case where William Todd Prophet was charged with embezzling various amounts belonging to Messrs. Heynes, Mathew & Co., of Cape Town (*C. & D.*, March 16, p. 406), the Attorney-General has declined to prosecute.

PLATINUM FROM CAPE COLONY.—Some time ago it was reported that platinum-bearing rocks had been discovered

in the neighbourhood of Graham's Town. Researches by Dr. Purvis and others showed that the rocks contained metals belonging to the platinum group, but it was found difficult, with the resources at their command, to separate the various metals. Dr. Purvis accordingly decided to send specimens to England and Germany for analysis, and advices have now been received from London certifying that the samples analysed contained 1½ oz. of platinum and 1¼ oz. of gold to the ton.

Rhodesia

MR. GEORGE T. BRANCH, chemist and druggist, and a former demonstrator with the late Mr. Watson-Will at the Metropolitan College of Pharmacy, is now with Messrs. Strachan & Co., chemists and dentists, Umtali.

Transvaal.

ARSENITE OF SODA.—The Department of Agriculture requires from 35 to 70 tons of arsenite of soda for next season's locust campaign.

MR. JOHN C. HEWLETT was in Johannesburg early in February for twelve days making friendly calls on all the chemists in town and district. When he left for Kimberley, a proof of his popularity and the success of his visit was shown by the number of leading chemists who were at the station wishing him God speed.

CUSTOMS MATTERS.—The peculiar interpretations and definitions of some of the terms in the Customs tariff by the Customs officials are a source of great worry and annoyance to chemists. For instance, a B.P. preparation like rhubarb pills, if imported in small boxes, is sometimes subject to the same rate of duty as a patent article like Beecham's pills—viz., 25 per cent. *ad valorem*. Again, the mass of any B.P. pill, ready for piping and cutting into pills, is charged the same duty as pills in bulk imported ready for sale—viz., 20*s.* per lb. Probably one of the first acts of the new Government will be to break away from the Customs Union and change the whole tariff, which at present to the export druggists of England and the retail chemists of the Transvaal is most iniquitous—ext. belladon. liq. containing 3.5 per cent. proof spirit paying 20*s.* per gal. duty, and 1 lb. Bland's pills paying 20*s.* also.

A CHEMIST-LEGISLATOR.—Mr. B. Owen Jones, chemist and druggist, Boksburg (whose portrait we give herewith), has been elected a member of the new Legislative Assembly of the Transvaal, having been returned, at the recent elections, at the top of the poll for Boksburg West constituency. Full particulars of Mr. Owen Jones's career were given in THE CHEMIST AND DRUGGIST of February 13, 1904, p. 290. He is managing director of B. Owen Jones & Co., Ltd., a company which has a number of branches throughout the Transvaal. His election to Parliament has been very popular, and he has been inundated with letters and telegrams of congratulation from all quarters. Mr. Jones is a member of the Transvaal Pharmacy Board and Examiner in Pharmacy, and he was entertained by some of the Board and other friends in the Carlton Hotel, Johannesburg, on February 22. He has been Mayor of Boksburg since 1903, and has always taken great interest in public affairs. Mr. Owen Jones is the only representative of pharmacy in the new Legislature. Two other chemists were expected to contest seats at the election—Mr. Thomson in Krugersdorp, and a Middelburg chemist for Ermelo—but they did not come forward. Medicine is well represented by five doctors—Drs. Napier, McNeillie, Macauley, Strachan, and Mortimer.



"THE MIDWIVES' RECORD AND THE MONTHLY NURSE," a new journal devoted exclusively to the interests of midwifery and maternity nursing, has been issued. It is a monthly, 2½d. post free, and is published by Messrs. Spottiswoode & Co., Ltd., 54 Gracechurch Street, London, E.C.

Contracts.

THE Irish Boards of Guardians have made the following contracts for medicines and surgical appliances :

—	Medicines	Surgical Appliances
Abbeyleix ...	Boileau & Boyd, 28 $\frac{3}{4}$ %	J. Clarke & Co. (Dublin), 35 $\frac{1}{4}$ %
Antrim ...	J. Clarke & Co. (Belfast)	Sumner & Co. (Liverpool)
Armagh ...	J. Clarke & Co. (Belfast), 34%	S. Connor & Son, 35 $\frac{1}{2}$ %
Athy... ..	J. Clarke & Co. (Dublin) 35 $\frac{1}{4}$ %	—
Ballycastle ...	Ben Clarke & Son (Belfast), 33 $\frac{1}{4}$ %	J. Clarke & Co., 34 $\frac{1}{2}$ %
Ballymoney... ..	J. Clarke & Co. (Belfast)	Sumner & Co.
Baltinglass ...	J. Clarke & Co., (Dublin) 35%	Sumner & Co., 33 $\frac{1}{4}$ %
Bantry ...	Sumner & Co., 30%	Same contractors, 35%
Bawnboy ...	J. Clarke & Co. (Belfast), 28 $\frac{1}{2}$ %	Sumner & Co., 37 $\frac{1}{2}$ %
Birr	To re-advertise ...	J. Clarke & Co. (Dublin), 35%
Carlow ...	Boileau & Boyd, 28 $\frac{3}{4}$ %	—
Castlederg ...	Sumner & Co. ...	Same contractors
Cavan ...	Sumner & Co., 33 $\frac{1}{4}$ %	Same contractors, 37 $\frac{1}{2}$ %
Claremorris ..	To re-advertise ...	—
Corkakilty ...	Cork Chemical & Drug Co., 20%	J. Clarke & Co. (Dublin), 34 $\frac{3}{4}$ %
Clones ...	J. Clarke & Co. (Belfast), 31 $\frac{1}{4}$ %	Same contractors, 34%
Coleraine ...	Sumner & Co. ...	Same contractors
Cork	Boileau & Boyd, (Dublin), 35%	Cork Chemical & Drug Co., 40%
Drogheda ...	Boileau & Boyd ...	S. Connor & Son
Dungannon...	Ben Clarke & Son ...	S. Connor & Son
Edenderry ...	J. Clarke & Co. (Dublin) 29%	Same contractors, 35 $\frac{1}{4}$ %
Ennis ...	J. Clarke & Co. (Dublin), 31 $\frac{1}{4}$ %	Same contractors, 35%
Gorey ...	J. Clarke & Co. (Dublin), 31 $\frac{1}{4}$ %	Same contractors, 35 $\frac{1}{4}$ %
Granard ...	Sumner & Co., 30%	J. Clarke & Co. (Dublin), 34%
Irvinestown ..	Sumner & Co., 33 $\frac{3}{4}$ %	Sumner & Son, 33 $\frac{3}{4}$ %
Kells... ..	S. Connor & Sons, 34%	J. Clarke & Co. (Dublin), 35%
Kilkenny ...	Boileau & Boyd, 30%	Sumner & Co., 37 $\frac{1}{2}$ %
Kilrush ...	Boileau & Boyd	Same contractors
Kinsale ...	J. Clarke & Co. (Dublin), 26%	Same contractors, 34 $\frac{3}{4}$ %
Larne ...	J. Clarke & Co. (Belfast), 34%	Sumner & Co., 37 $\frac{1}{2}$ %
Letterkenny	Sumner & Co.	Same contractors
Lisnakea ...	Sumner & Co., 33 $\frac{1}{2}$ %	Same contractors, 37 $\frac{1}{2}$ %
Longford ...	Ben Clarke & Son, 31%	Same contractors
Lurgan ...	J. Clarke & Co. (Belfast), 34%	S. Connor & Son
Manorhamilton	H. Boyers (Sligo) ...	Sligo Medical Supply Co.
Mohill ...	A. Burns (Mohill) ...	Same contractor
Mountmellick	Boileau & Boyd, 30%	J. Clarke & Co. (Dublin), 35 $\frac{1}{4}$ %
Nenagh ...	Apothecaries' Hall (Dublin), 33 $\frac{1}{4}$ %	J. Clarke & Co. (Dublin), 35%
New Ross ...	Sumner & Co., 33 $\frac{1}{4}$ %	—
Oldcastle ...	J. Clarke & Co. (Dublin), 31 $\frac{1}{4}$ %	Same contractors, 35 $\frac{1}{4}$ %
Roscommon	J. Clarke & Co., 28 $\frac{3}{4}$ %	Same contractors, 35 $\frac{1}{2}$ %
Roscrea ...	Apothecaries' Hall (Dublin), 28 $\frac{3}{4}$ %	J. Clarke & Co. (Dublin), 35 $\frac{1}{4}$ %
Sligo... ..	H. Boyers ...	Medical Supply Co.
Trim... ..	Boileau & Boyd, 28 $\frac{3}{4}$ %	J. Clarke & Co. (Dublin), 35 $\frac{1}{4}$ %
Tulla... ..	Sumner & Co. ...	Fannin & Co.
Youghal ...	Boileau & Boyd, 28 $\frac{3}{4}$ %	J. Clarke & Co. (Dublin), 35 $\frac{1}{4}$ %

The following contracts have been settled in England :

Forehce Workhouse.—Mrs. Alpe, Wymondham, for drugs.

Whitehaven Town Council.—Sanitas Co., Ltd., for disinfectants.

Yeovil Town Council.—Lawes Chemical Co., Ltd., for disinfectants.

Hemel Hempstead Urban Council.—Sanitas Co., Ltd., for disinfectants.

Sudbury Board of Guardians.—Mr. J. H. Brown, Sudbury, for drugs, etc.

Orsett Workhouse.—Mr. J. C. Mitchell, pharmaceutical chemist, Grays, for drugs.

Lexden and Winstree Board of Guardians.—Messrs. Burgoyne, Burbidges & Co., for drugs.

Sheffield Board of Guardians.—Messrs. Hearon, Squire & Francis, Ltd., for supply of drugs.

North Staffs Small-pox Hospital.—Mr. J. D. Furnival, chemist and druggist, Hanley, for drugs.

Romford Board of Guardians.—Mr. W. S. Steeples, chemist and druggist, Romford, for drugs.

Colchester Board of Guardians.—Mr. W. Edes Everett to be chemist to the workhouse for six months.

Cranbrook Board of Guardians.—Messrs. Stonham & Son, chemists, Maidstone, for medical appliances.

Truro City Council.—Jeyes' Sanitary Compounds Co., Ltd., and the United Alkali Co., for disinfectants.

High Wycombe Board of Guardians.—Messrs. Young & Co., High Wycombe, for cod-liver oil and disinfectants.

Camberwell Borough Council.—Messrs. Pryke & Palmer and Messrs. A. C. Young & Co., for various disinfectants.

Portsmouth Board of Guardians.—Messrs. Burgoyne, Burbidges & Co., for drugs at 33 $\frac{1}{2}$ per cent. off list prices.

Metropolitan Asylums Board.—Messrs. Townson & Mercer, Camomile Street, E.C., for laboratory-appliances.

Sunderland Board of Guardians.—Mr. R. Anderson, chemist and druggist, Chester Road West, for liquid soap.

Smallburgh Board of Guardians.—Mr. A. E. Beeston, chemist and druggist, Norwich, for cod-liver oil and drugs.

Dover Board of Guardians.—Mr. A. L. Thompson, chemist and druggist, Dover, for chemicals at 25 per cent. off list prices.

Erith Urban Council.—Messrs. Bridgwater & Wright, for manganate of soda; Messrs. Burgoyne, Burbidges & Co., London, for drugs.

Kettering Board of Guardians.—Messrs. Hitchman & Son, chemists, for surgical dressings and drugs; and Mr. H. S. Cox, chemist and druggist, for disinfectants.

Bethnal Green Board of Guardians.—Baiss Bros. & Stevenson, Ltd., for the annual supply of drugs; Hospitals and General Contracts Co., for druggists' sundries.

Strood Board of Guardians.—Sanitas Co., Ltd., for disinfecting-fluid at 9s. per doz. pint bottles; F. C. Calvert & Co., for disinfecting-fluid, at 5s. 6d. per doz. pint bottles.

Milton-next-Sittingbourne Urban District Council.—Mr. H. T. Maundrell, chemist and druggist, Milton, for permanganate of potash, 6d. per lb.; pale carbolic acid, 1s. 6d. per gal.; saline fluid, 1s. 10d. per gal.; carbolic powder, 5s. 6d. per cwt.; crude Sanitas, 4s. 3d. per gal.; and Sanitas powder 11s. 6d. per cwt.

Tottenham Urban District Council.—Burt, Boulton & Haywood, Ltd., for carbolic acid, 1s. 1d. per gal.; carbolic powder, 3s. 4d. per cwt.; carbolated creosote, 6 $\frac{1}{2}$ d. per gal.; formalin fluid, 5s. 6d. per gal.; formalin tablets, 4s. per lb. Newton, Chambers & Co., Ltd., for Izal, 3s. 6d. per gal. Sanitas Co., Ltd., for Sanitas preparations, sulphur candles, etc.

Poplar and Stepney Sick Asylums Board.—Messrs. Hodgkinson, Prestons & King, for drugs for the year (1,232l. 13s. 2d.); Idris & Co., Ltd., for mineral-waters for six months (229l. 15s.); Messrs. Jones & Co., for methylated spirit for the year (50l.); G. Mason & Co., Ltd., for beef-tea and extracts of meat (293l.); Messrs. Burgoyne, Burbidges & Co., for waterproof goods (181l. 2s. 9d.).

The tender accepted by the Works and Stores Committee of Bethnal Green Borough Council from Newton, Chambers & Co., Ltd. (C. & D., March 9, p. 355), includes Izal fluid in 8-oz. tins, 3l. 12s. per gross, not in bottles as stated.

Legal Reports.

Trade Law.

Bile-beans Appeal.—A petition was read in the House of Lords on March 18 by the appellants in the Bile Bean Manufacturing Co. and others v. Davidson, that the time for lodging their printed cases and the appendix and setting down the cause for hearing may be extended to April 19. The petition was ordered as prayed.

What is a Private Wire?—Mr. Justice Swinfen-Eady in deciding in favour of the Postmaster-General in his case against the National Telephone Co., said: "Where a telegraph is maintained for the mutual business or private affairs of two or more separate and independent persons or concerns it is not a private wire."

High Court Cases.

IRON-OX CASES.

In the Chancery Division on March 15, before Mr. Justice Swinfen Eady, Mr. Colefax said that in the case of Iron-Ox Remedy Co., Ltd., v. Norman F. Woodcock he had a motion to restrain the defendant from selling any medicinal compound under the name of iron oxide or in any other manner representing that the goods of the defendant were those of the plaintiffs. It was an ordinary passing-off action, and the defendant consented to the motion being treated as the trial of the action, to an injunction in the terms of the writ, and to pay the taxed costs of the action. His Lordship made an order in the terms agreed upon.

The Iron-Ox Co-operative cases were expected to be heard on Tuesday of this week by Mr. Justice Warrington, but, owing to the unfortunate accident which happened to his Lordship when witnessing a "Thermite" and "Weldite" experiment on March 13, the business in his court has been delayed.

THE FRASERBURGH CHEMIST'S SLANDER ACTION.

In the Court of Session, Edinburgh, on March 15, the Judges of the Second Division disposed of the appeal against a judgment given by the Sheriff-Substitute at Peterhead Sheriff Court in the action by Alex. Gall, chemist and druggist, Fraserburgh, against R. A. Slessor, medical practitioner there, for 250*l.* as damages for slander which he said was contained in a letter which defender wrote to him. The Sheriff-Substitute held that the letter referred to was privileged, and dismissed the action, with expenses. That decision has been reversed by the Second Division Judges, and the pursuer has been awarded 30*l.* as damages. Reports of the appeal hearing were given in the *C. & D.*, March 2, p. 325, and March 9, p. 378.

Lord Low, who gave the leading opinion, said the slander complained of was contained in the letter which was quoted in the condescence. The circumstances in which the letter was written were as follows:

On August 7, 1905, a fisher-girl suffering from dyspepsia consulted the defender, who gave her a prescription consisting of several ingredients, the first and principal of which was a compound bismuth mixture described in the prescription by the formula "Mist. bism. co." It appeared that a practice had prevailed to some extent in Fraserburgh for each medical man to employ a particular chemist, to whom, in order to obviate the necessity of writing out compound ingredients of prescriptions *ad longam*, he might give short formulæ for such ingredients as he was in the habit of using frequently. The defender said that when he began practice in Fraserburgh a few years ago he found it to be expedient to adopt the prevailing custom and to employ a special chemist, and accordingly he selected a gentleman of the name of Hunter. The defender had been in the habit of using a bismuth mixture which was known as "Hewlett's," but Hunter advised him that it was too expensive for the class of patient which he was likely to have, and accordingly he devised a mixture upon the same lines as Hewlett's, but which could be made up at a smaller cost. The defender arranged with Hunter that in his prescriptions that mixture should be indicated by the form "mist. bism. co." The defender said that he regarded that formula as being so indefinite that if it were presented to any chemist in Fraserburgh other than Hunter such chemist would require to apply either to Hunter or to himself in order to ascertain the precise composition of the mixture. His Lordship thought the defender was mistaken in

that view, because there is a large body of evidence, he said, to the effect that there are several well-known bismuth mixtures, all of which would be properly described by the formula "mist. bism. co.," and any one of which a chemist would be entitled to use in making up a prescription containing that formula, unless there were something in the prescription indicating that a particular mixture was intended. The important distinction, at all events for the purposes of this case, between the different bismuth mixtures was that some are prepared so as to give an alkaline reaction and others an acid reaction. The defender's mixture, and that which he intended to be supplied to the patient, was alkaline, but the pursuer, to whose shop the patient went to have the prescription made up (the defender having said nothing to her on the subject), supplied the acid mixture. He did so because the second ingredient in the prescription was "liquor peptica," which has an acid reaction, the effect of which might have been neutralised if an alkaline bismuth mixture had been used.

In his Lordship's opinion the evidence showed that the pursuer was for that reason justified in supplying the acid mixture, no particular mixture being specified in the prescription, and the mixture which he supplied appears to have been one in common use in Fraserburgh. Further, there was an incident which seemed to his Lordship to indicate that the pursuer acted in perfectly good faith. One ingredient in the prescription was "bipalox," which the pursuer had not in stock, and had sent to Hunter's shop for it, assuming that he would get it there, as Hunter was defender's chemist. His Lordship thought that if the formula used in the prescription of the bismuth mixture had appeared to the pursuer to be ambiguous, he would at the same time have inquired what was the mixture which was intended. He said that he would have done so, and it would have been a natural thing to do. Upon August 8, the day after he had given the prescription in question, the defender was in Hunter's shop, and found that the latter had not dispensed the prescription and that the pursuer had presumably done so, having sent to Hunter for "bipalox." The defender accordingly rang up the pursuer on the telephone, and, having ascertained that he had dispensed the prescription, asked him what he had put in it. The pursuer replied that he had used "the acid bismuth mixture of Burnett's shop," and a somewhat heated conversation seems to have ensued, which the pursuer closed, as the defender thought in a discourteous manner, by cutting off the telephone communication. That occurred before 11 o'clock in the morning, and the defender did not write this letter complained of until he had finished his work for the day. He said that when he wrote it "his feelings of indignation had not in any way calmed down."

The letter was plainly slanderous, and the defence was that the occasion upon which it was written was privileged, and that it was not proved that it was written maliciously. His Lordship was of opinion that the occasion was privileged. The medicine which was dispensed to the patient was not precisely what the defender intended, and although the difference between what was intended and what was supplied was not very material, his Lordship had no doubt that the defender had a right, if not a duty, to inquire into the matter because it is a serious thing for a chemist to dispense a drug which is not in precise accordance with a physician's prescription. His Lordship, therefore, thought that anything pertinent to the occasion which the defender might have said or written to the pursuer would have been protected unless malice was averred and proved. For example, if the defender had accused the pursuer of gross carelessness in the conduct of his business or of want of reasonable skill as a chemist, he thought that such a statement would have been privileged. But the letter which the defender actually wrote went, in his Lordship's opinion, far beyond anything which the occasion warranted. It was true that the precise terms of a privileged letter are not to be scrutinised too strictly, and if the letter had been written in the heat of the moment when the defender first learned of the mistake which had been made, there would have been a good deal to be said for the view taken by the learned Sheriff-Substitute. But, so far from that being the case, the defender wrote the letter after he had had the greater part of the day to think over the matter. That circumstance imports into the case an element of deliberation which, in his Lordship's judgment, is fatal to the defender. To charge the pursuer deliberately, and after ample time for consideration, with having obtained money on false pretences, and to threaten him that unless the money was refunded and an apology made the matter would be put into the hands of the police, was, in his Lordship's opinion, so extravagant, and indicated such reck-

lessness on the defender's part, as to infer malice. It therefore seemed to him that the pursuer was entitled to an award of damages. In regard to the amount this was plainly not a case for awarding a large sum, but as little was it a case in which justice would be done by a merely nominal award. He therefore proposed to their Lordships that they should give decree for the sum of 30*l*.

The Lord Justice Clerk and Lord Ardwall concurred. Judgment was entered accordingly.

County Court Case.

A WIDOW'S LIABILITY.

IN the City of London Court on March 15, before Judge Rentoul, K.C., Messrs. Barron, Harveys & Co., wholesale druggists, Giltspur Street, sued Mrs. W. A. Grimwood, 104 Farringdon Road, for 19*l*. 8*s*. 2*d*. for drugs supplied. Mr. Brodie, for the plaintiffs, said the defendant's husband had before his death carried on the business, and she had continued it, dealing with the plaintiffs. The balance now claimed was the result of a running account. Mr. R. J. Cook, for the defendant, said the drugs were supplied to the defendant's late husband, and the claim ought to have been made against Mrs. Grimwood as her husband's executrix, because the plaintiffs' claim could only properly be made against the estate of the deceased. Mr. Grimwood, who had been a chemist for a great many years, died on August 9, 1905, and his estate was sworn at 11*l*. 10*s*. The plaintiffs' claim at that time amounted to 33*l*., and the defendant, the deceased's widow, had since conducted the business. She had been paying cash for all goods supplied since her husband's death, and, in addition to that, she had reduced the 33*l*. due from her husband to 19*l*. Really and truly she was not liable to the plaintiffs for the amount now claimed, and their only remedy was against the dead man's estate. Mrs. Grimwood had paid off other creditors in the same way as the plaintiffs' debt had been reduced. Mr. Brodie said the plaintiffs' view was that the goods had been delivered to the defendant's business. There had been no change on the part of the defendant in carrying on the business, and since probate had been taken out Mrs. Grimwood had signed letters acknowledging the debt. Judge Rentoul said he could see how the matter rested. The husband died, and he left a business which was worth no more than 11*l*. Supposing he had no widow at all, but his sister had stepped into the chemist's shop. Could she be liable for any more than the amount of the goods in the shop at the time of the death belonging to the man? Counsel argued at considerable length the point as to whether the widow, as the present conductor of her husband's business, is liable for the debts contracted before his death, and it transpired that she had found the money for her husband to purchase the business thirteen years ago. She is now in distressed circumstances. Judge Rentoul, in giving judgment for the amount claimed, with costs, to be payable at the rate of 10*s*. a month, expressed the opinion that the case was one for lenient treatment. Mr. Brodie, on behalf of the plaintiffs, said they did not wish to press her at all.

Bankruptcies and Failures.

Re HENRY TRIST-GAINS, formerly trading as a Chemist at Brettell Lane, Amblecote, near Stourbridge.—The Official Receiver of the Maidstone (Kent) Bankruptcy Court, as trustee under this failure (see *C. & D.*, November 17, 1906, p. 744, and November 24, 1906, p. 779), reports that he has completed the realisation of the estate. After meeting preferential claims and the costs, a first and final dividend of 2*s*. 2½*d*. in the pound will be paid to the unsecured creditors.

Re LEWIS AMABLE FRESSON, 12 Jervis Street, Hanley, Staffs, Chemist's Assistant.—A meeting of creditors was held on March 18, at Newcastle-under-Lyme. The debtor's statement of affairs showed liabilities amounting to 181*l*. 5*s*. 3*d*. and assets estimated at 12*l*. 10*s*. Debtor alleged as the cause of failure "closing of pottery-works in Old Hall Street in 1904, keen competition, household and personal expenses in excess of income, and law-costs." The case was left in the hands of the Official Receiver.

Trust Deed.

ROBERT BENJAMIN WILKIE, Chemist and Druggist, 16 Rodney Street, Edinburgh, has granted a trust deed on behalf of his creditors in favour of Mr. James Mullo Weir, S.S.C., 80 Hanover Street, Edinburgh.

Gazette.

Partnership Dissolved.

HORROCKS, W. E., and MACKAREL, J. H., under the style of Horrocks & Mackarel, Brook Street, Knutsford, mineral-water manufacturers.

The Bankruptcy Acts, 1883 and 1890.

ADJUDICATION.

GIBSON, JAMES EDWARD, Shepherd's Bush Green, London, W., late Broadway, Hammersmith, London, W., pharmaceutical chemist.

New Companies and Company News.

NEUROSOL CO., LTD.—Capital 500*l*., in 1*l*. shares. Objects: To carry on the business of general merchants and store-keepers, wholesale, retail, and manufacturing chemists and druggists, patent-medicine vendors, opticians, dentists, photographers, etc. The first subscribers are: W. McB. Marcham, Hornsey, N., clerk; P. E. Saunders, consulting engineer; F. Marcham, Hornsey, surveyor; B. Beck, Hornsey, chemist's assistant; J. Lambie, Aldersgate Street, E.C., electrical engineer; O. Bouffler, Palmer's Green, draughtsman; and F. Barrett, student of medicine. Secretary and registered office, F. Barrett, 4 Alexandra Pavement, N.

LORIMER & MOYES, LTD.—Registered in Edinburgh. Capital 15,000*l*., in 7,500 5 per cent. cumulative preference and 7,500 ordinary shares of 1*l*. each. Objects: To take over the business of the late Wm. Murray Dykes, sole partner of the firm of Lorimer & Moyes, wholesale perfumers and druggists' sundriesmen, and to carry on the business of chemists and druggists and hairdressers' sundriesmen, dealers in pharmaceutical, medicinal, chemical, industrial, and other preparations, etc. The first subscribers are: A. M. Dykes, jeweller, Glasgow; James Dykes, retired, Glasgow; James Cameron, traveller, Glasgow; T. Anderson, traveller, Glasgow; J. Campbell, warehouseman, Glasgow; Chas. Herbert Pfeiffer, traveller, Glasgow; and Wm. B. Brown, traveller, Glasgow. Registered office, 191 Argyle Street, Glasgow.

GWILYM EVANS' QUININE-BITTERS CO., LTD.—The first directors of this company (after reconstruction) are Mr. Owen Isgood Jones, J.P., Plasynre, Llanrwst; Mr. J. D. Llewellyn, J.P., merchant, Neath; and J. Griffith Isaac, chemist and dentist, Neath.

SPRATT'S PATENT, LTD.—The annual meeting was held at the Cannon Street Hotel, London, E.C., on March 19, Mr. Robert Baelz (chairman of the company) presiding, when the report and accounts (*C. & D.*, March 16, p. 411) were unanimously adopted and the proposed dividend agreed to.

VINOLIA CO., LTD.—The secretary of Lever Bros., Ltd., has issued a circular letter to shareholders in the Vinolia company stating that the whole of the ordinary shares having been acquired by Lever Bros., Ltd., holders of preference shares of Vinolia Co., Ltd., are invited to exchange their holdings for preference shares in Lever Bros., Ltd.

A. & F. PEARS, LTD.—The directors have resolved to declare dividends for the six months ended December 31, 1906—viz., on the preference shares at the rate of 6 per cent. per annum, and on the ordinary shares at the rate of 8 per cent. per annum. The transfer-books of the above shares will be closed from March 18 to March 31, both days inclusive.

INTERNATIONAL SPONGE-IMPORTERS, LTD.—The annual meeting of shareholders was held at Winchester House, Old Broad Street, London, E.C., on March 15, under the chairmanship of Mr. G. S. Marks, when the annual report (*C. & D.*, March 16, p. 411) and dividend recommended were carried unanimously.

ABERDEEN COMB-WORKS CO., LTD.—The annual meeting of this company was held at Aberdeen on March 13, Sir David Stewart presiding. The report, which recommended the payment of a half-year's dividend to December 31, 1906, at the rate of 4½ per cent. per annum on the preference stock and 5 per cent. for the year on the ordinary shares, was unanimously adopted.

PRICE'S PATENT CANDLE CO., LTD.—The annual meeting of shareholders in this company was held on March 15 at the Cannon Street Hotel, London, E.C., Sir Peter Spokes, Chairman of directors, presiding. In moving the adoption of the report and dividends (see *C. & D.*, March 9, p. 382), the Chairman referred to the fact that that was their diamond jubilee—the sixtieth annual meeting of the company. He compared notes with the jubilee report of ten years ago, showing that the position of the company is stronger, in spite of the acute competition. The reports were adopted, Mr. Salisbury being appointed secretary, at a salary of 600*l*. £

year, in succession to the late Mr. Withall. Mr. C. T. Harris was re-elected a director.

UNITED ALKALI CO., LTD.—The report for the year 1906 states that the net profit is 393,293*l.*, to which is added the amount brought forward, 41,706*l.*. Deducting 15,000*l.* transferred to debenture redemption-fund account (making a total of 75,000*l.*), and after transferring 75,000*l.* to reserve fund (making a total of 175,000*l.*), and 50,000*l.* to reserve fund (depreciation portion, making a total of 850,000*l.*), the directors propose to apportion the balance as follows: Interim dividend on preference shares at 7*s.* per share, for six months to June 30, less income-tax, 93,939*l.*; final dividend on preference shares at 7*s.* per share, for six months to December 31, 1906, 93,939*l.*; dividend on the ordinary shares at 4*s.* per share for the twelve months, 56,875*l.*; amount carried forward, 50,246*l.*. The alkali and copper works of Messrs. William Henderson & Co., Ltd., at Irvine (Ayrshire), have been acquired by the company. Mr. Holbrook Gaskell has succeeded the late Sir Charles Tennant as president, and the directors have appointed Mr. G. Christopher Clayton, of Liverpool, a director in the place of Mr. William Gamble.

SOUTHALL BROS. & BARCLAY, LTD.—The report of directors for the year ended December 31, 1906, states that the steady progress of the business has been well maintained during the year, the volume of trade done being in excess of any previous year. This increase extends more or less to every department of the business. The directors are consequently enabled not only to add a substantial sum to the internal reserve and to increase the general reserve by 1,000*l.*, but to pay a dividend of 11 per cent. on the ordinary shares, instead of 10 per cent., as hitherto. The accounts show that, after providing for bad debts, depreciation, and directors' remuneration, there is a balance of profit for the year of 15,515*l.* 1*s.* 3*d.*, which, with 3,007*l.* 19*s.* 4*d.* brought forward from last year, makes a total of 18,523*l.* 0*s.* 7*d.* Out of this 445*l.* 12*s.* 8*d.* has been paid for interest on loans, as well as 2,750*l.* for interim dividend on preference shares, leaving a balance of 15,327*l.* 7*s.* 11*d.*, which the directors recommend should be appropriated in paying a second half-year's dividend on preference shares at the rate of 5 per cent. per annum (2,750*l.*); year's dividend on ordinary shares at the rate of 11 per cent. per annum (7,920*l.*); carrying 1,000*l.* to reserve and carrying forward 3,657*l.* 7*s.* 11*d.* to next account. Mr. A. W. Southall retires, but offers himself for re-election as a director.

Trade Notes.

A REPRESENTATIVE of Mr. H. Madoery, manufacturer of synthetics, etc., Basle, will visit England soon.

MESSRS. WRIGHT, LAYMAN & UMNEY, LTD., 48 Southwark Street, London, S.E., again invite the attention of retailers to the special terms they offer to those who are prepared to make window-displays of Wright's soap.

WHOLESALE WINE-LIST.—**MESSRS. W. H. Chaplin & Co.**, Ltd., 35 and 36 Mark Lane, London, E.C., publish a monthly market-list, which, besides containing the prices of wines and spirits in general demand, has a space devoted to special parcels, which chemists who have wine-and-spirit licences should follow. The list is sent on request to anyone in the trade.

"**PROFITABLE BUSINESS**" is a monthly periodical issued to chemists by the Koko-Maricopas Co., Ltd., of 16 Bevis Marks, London, E.C. It is mainly devoted to furthering the interests of "Koko," and there are various business propositions contained therein, in which chemists will be interested. A postcard, bearing the name and address of the sender, forwarded to the company will secure a monthly copy post free.

PHARMACEUTICAL MACHINERY.—**MESSRS. Wm. Gardner & Sons, Ltd.**, Bristol Road, Gloucester, have published a new edition of list No. 18, which refers to the various "Rapid" sifters and mixers, grinding-mills, disintegrators, hoists, gas-engines, elevators, and other machinery. The list has been revised, and contains several new machines. Messrs. Gardner tell us they will be glad to send a copy to anyone who is interested.

"**ALAXA**" is the name which Messrs. Burroughs Wellcome & Co. give to an aromatic liqueur of cascara sagrada, which has been on the market for some time. Each drachm of it is equal to 24 minims of liquid extract of the drug, but the preparation is made in the light of researches conducted by the firm's works-manager, with the result that it combines palatability with efficiency. "Alaxa" is put up neatly in 4-oz. bottles, each enclosed in a carton.

THERMOMETER-CASE.—**MR. J. J. Hicks**, Hatton Garden, London, E.C., sends us a new thermometer-case, designed to facilitate the shaking down of the mercury in a clinical thermometer. The case is provided with projections, by means of which the case can be twisted at a good rate, thus bringing centrifugal force into action.

DEAD STOCK.—The Bristol Pharmaceutical Association have inaugurated a system of registering the surplus or dead stock which the members have for disposal, and also odd items required. The members are charged a fee of 1*d.* for goods up to 10*s.* to cover registration-expenses for twelve months, only one class of goods being included. The classification is done on the card-system, and Mr. Matthews, of Clifton, who has charge of the files, puts the members into communication and allows inspection of the cards. The idea is good, and we shall be interested in hearing how it answers, and what alterations are needed in the system when it comes to be tried.

MESSRS. BURROUGHS WELLCOME & Co. have made the following awards for negatives produced with "Tabloid" Methol-Quinol Developer:

First Prize, 5*l.* 5*s.*, to Mr. Dan Dunlop, Motherwell, for "A Portrait Study."

Second Prize, 3*l.* 3*s.*, to Mr. C. R. Dodd, Clapham, for "The Choir," Salisbury Cathedral.

Third Prize, 2*l.* 2*s.*, to Mr. F. Anyon, Bootle, for "A Fruit Study."

*Three Prizes of 1*l.* 1*s.* each*, to Mr. H. P. Hopkins, Newby, for "Imps of Mischief"; Mr. J. J. Canice Shelly, Manchester, for "Reflections"; and Mr. Wm. J. Appleby, East Dulwich, for "November."

Trade prizes have been awarded to the following, from whom the above competitors procured their "Tabloid" photographic chemicals, viz.: Mr. D. Baillie, chemist, Motherwell, 5*l.* 5*s.*; Mr. Tudor T. Hora, chemist, York Road, Wandsworth, S.W., 3*l.* 3*s.*; Mr. Fred. V. A. Lloyd, 15 Lord Street, Liverpool, 2*l.* 2*s.*; Mr. E. R. Cross, chemist, Scarborough, 1*l.* 1*s.*; Messrs. Benetfink & Co., Ltd., Cheapside, E.C., 1*l.* 1*s.*; and Mr. J. T. Chapman, chemist, Albert Square, Manchester, 1*l.* 1*s.*

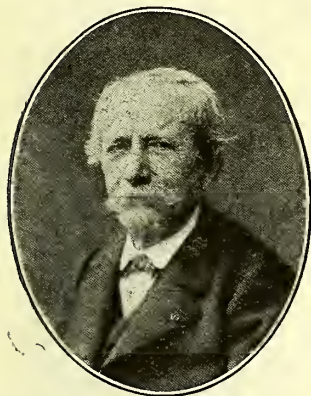
THE NEW PROTEID.—I had a talk the other day, writes a C. & D. representative, with two of the directors of Peek, Frean & Co., Ltd., at their great factory in Drummond Road, S.E., regarding their new protein preparations. Tilia they claim to be a milk albumen in its unaltered and most digestible form. The process of preparation and the care which is taken in the selection of the ingredients ensures the genuineness of the finished product, but one great feature concerning Tilia powder, which is not so evident in other preparations of the same class, is that it is always soluble. A very well-known public analyst has remarked on that particular phase of the product, and we have demonstrated the solubility of the powder to our own satisfaction. An analysis of the powder shows that it consists chiefly of casein. The full analysis of an expert is given as follows:

Moisture	...	...	...	8.51 per cent.
Casein	...	...	...	76.37 "
Fat	...	...	...	0.17 "
Non-nitrogenous matters	...	...	...	5.70 "
Mineral substances	...	...	...	9.25 "
				100.00
Total nitrogen	...	...	...	11.97 per cent.
Phosphoric anhydride	...	...	...	1.83 "

Milk casein being one of the most important albuminous food-materials and being practically tasteless, it may be added to any foods to increase their nourishing-power. Thus in its dry form Tilia powder may be sprinkled over any food, vegetables, puddings, etc., thereby increasing their nutrient value. The manufacturers of Tilia ensure the invariable solubility of their products by the carefulness of the packing. Each tin of Tilia powder is hermetically sealed, but the sealing is done in such a way as not to worry the housewife when she removes the lid, for the internal covering (while securing complete "airtightness") is easily and quickly removable. At present, besides the powder (in 9*d.*, 1*s.* 4*d.*, and 2*s.* 6*d.* tins), there are Tilia cocoa (in the same-size tins) and Tilia biscuits in three varieties. Chemists will find, we feel sure, a ready sale for the Tilia products. They are reliable, they are put up attractively, and the retail prices are protected.

Deaths.

BERTHELOT.—At Paris, on March 18, Professor Marcellin Berthelot, F.R.S., aged seventy-nine. The distinguished French chemist and politician died with tragic suddenness. Madame Berthelot, who had reached the "allotted span," was vigorous in her charitable work until three months ago,



when she became indisposed, a heart-malady being diagnosed. The Professor insisted on nursing her himself, although he had heart-weakness complicated with angina pectoris. He on several occasions collapsed while sitting in an easy-chair by her bedside. Early on Monday morning Madame Berthelot became comatose, and thus remained until four in the afternoon, when she suddenly awoke, gazed around, and dropped back dead. The Professor, who had been watching her, was the first to notice that life was extinct, and he was so profoundly affected that he

went into the next room and threw himself on a soft. There he was found a few minutes later dead. This simultaneous passing of two devoted souls together into eternity is one of the most pathetic incidents in the history of great men of science. Berthelot was one of the greatest of the great, his brilliance of experiment, originality of thought, and ascendancy of conception having produced work in chemistry and physics for which all the world of science paid him tribute. He was born in Paris on October 25, 1827, his father being a physician, and after his education in arts he was, in 1851, appointed assistant to Balard, professor of chemistry at the College de France. In 1854 he obtained the doctorate in science, and in 1859 was appointed professor of pharmacy at the Paris Superior School of Pharmacy. By this time his name had become known for his brilliant synthetical work. He had produced alcohol from acetylene in 1858, and this was the starting-point of a series of investigations on alcohols, hydrocarbons, and carbohydrates, which his contemporaries appreciated well, as may be judged by the fact that he was elected an honorary and foreign member of the Chemical Society of London within a few months after his going to the School of Pharmacy. The Academy of Sciences did not think this professorship good enough for Berthelot, and in 1865 a new chair of organic chemistry was created for him in the College de France. Strange to say, organic chemistry became from that time subordinate with him to thermo-chemistry, his researches in which were described in two large volumes, "*Mécanique chimique fondée sur la Thermo-chimie*," published in 1879, followed by two more on "*Thermo-chimie*" in 1897. These studies led to the investigation of explosives, about which he also published a book in 1872. In 1878 he discovered persulphuric acid. Later in life he turned his attention to the history of chemistry, and his book on "*Les Origines de l'Alchimie*," together with his publication, with translations and notes, of various old Greek, Arabic, and Syriac treatises on alchemy, shed a flood of light on the chemistry of the Middle Ages. In 1873 Berthelot was elected to the Academy of Sciences and a F.R.S. He succeeded Pasteur in 1889 as Perpetual Secretary of the Academy. Besides serving the world in science, Berthelot served his country well as an administrator. He was elected life Senator in 1881, and in 1886 became Minister of Public Instruction and Fine Arts. He was Minister of Foreign Affairs in the Léon Bourgeois Cabinet in 1895, but did not remain long in office. On the British Government intimating its intention of reconquering the Soudan, M. Berthelot issued a note to the Press of a comminatory character, which led Lord Dufferin to make representations to M. Léon Bourgeois. The matter was settled by M. Berthelot resign-

ing office "for reasons of health," and he returned to his scientific pursuits.

Our Paris Correspondent writes: At the Cabinet Council held at the Elysée Palace on Tuesday morning, M. Fallières presiding, it was decided to ask the Chamber of Deputies to vote a national funeral for M. Berthelot, and this the Chamber has acceded to, 20,000*f.* being voted for the purpose. In accordance with the known wish of the deceased free-thinking savant, there will be no religious ceremony. The funeral of Madame Berthelot will take place simultaneously with that of her husband at the family grave in Neuilly. The Chamber of Deputies, the Senate, the Paris Academy of Medicine, and the Institute of France have all passed votes of condolence and regret.

CAMPBELL.—At 37 King Street, Montrose, on March 9, Isabella, daughter of the late William Campbell, chemist and druggist, aged seventy-one.

FARMER.—At Phoenix House, Spilsby, on March 11, Mr. Arthur Coningsby Farmer, chemist and druggist, aged sixty-three. For the past seventeen years Mr. Farmer had been in business in Spilsby, and for seven years prior to that he was at Southboro, Tunbridge Wells. He died from stricture of the *æso*phagus, after a long and painful illness, leaving a widow and seven sons.

HEWITT.—The death occurred at his residence, 12 Borstal Road, Rochester, on March 19, of Mr. John Henry Hewitt, an old and highly respected citizen. Mr. Hewitt formerly carried on the business of a chemist and druggist in High Street, Rochester, retiring some sixteen years ago. He was in his seventy-sixth year.

KELLY.—At Endsleigh Place, Plymouth, on March 14, Mr. Philip Alfred Kelly, chemist and druggist, aged fifty-four. Mr. Kelly was a native of Saltash, the town on the Cornish side of the River Tamar, being the eldest son of the late Mr. Alfred Kelly, who for many years was in business as a chemist in that town, and was succeeded by his wife, also a registered chemist. Mr. Kelly carried on business in Morice Town, Devonport, for some time, and five years ago was appointed dispenser at the South Devon and East Cornwall Hospital, Plymouth, but in consequence of ill-health he had been unable to perform his duties at the hospital for six months past.

MOUNT.—At 5 Cecil Road, Gravesend, on March 11, Mr. James Mount, chemist and druggist.

PETERS.—At his residence, Westcliffe-on-Sea, on March 18, suddenly, Mr. David Peters, pharmaceutical chemist, of Messrs. Williams & Peters, Fortress Road, Kentish Town, London, N.W., aged fifty-five. During the past six months Mr. Peters had been residing in Westcliffe, coming up to town daily, and when he went to his seaside home at the end of last week he was in his usual robust health. On Monday afternoon he was suddenly seized with illness and expired. The business with which he was connected was one founded by Mr. T. H. Williams Idris. Mr. Peters was a Welshman, and passed the Minor and Major examinations in 1871. A few years later he joined Mr. Williams Idris in partnership, and this continued until Mr. Idris's retirement from the retail trade. Latterly Mr. Peters has had Mr. Perrett and Mr. Thomas Rawlins with him as partners. He is survived by Mrs. Peters and a daughter (Mrs. Thomas Rawlins). An inquest was to be held on Thursday.

PURVES.—On February 5, at Leongatha, Victoria, Mr. Thomas Purves, J.P., aged seventy-one. Mr. Purves served his apprenticeship with his uncle, Dr. Purves, in Coldstream, Scotland, and in 1857 he went to Victoria, where, after experience on the goldfields, he was in business successively at Buninyong, South Geelong, Essendon, Brunswick, Warragul, and Leongatha.

WARINGTON.—At High Bank, Harpenden, on March 20, Mr. Robert Warington, M.A. (Oxon.), F.R.S., F.C.S.. Although the greater part of Mr. Warington's life had been devoted to research in agricultural chemistry under Sir John B. Lawes and Sir Joseph Gilbert at the Rothamsted experimental farm, he was also by descent and practice interested in pharmaceutical chemistry. His father, Mr. Robert Warington, was Superintendent of the Apothecaries' Hall, the first Secretary of the Chemical Society on its foundation, and co-editor with Professor Redwood of the *British Pharmacopœia*, 1667. The younger Warington had a good training under his father and at the Royal College of

Chemistry. He then became an analyst to Messrs. J. B. Lawes & Co., chemical-manufacturers, and the assistance he gave Sir John Lawes in his agricultural work ultimately took him to the quiet of Rothamsted, where he was head of the laboratory. There the most famous of his researches was on nitrification, this getting him his F.R.S. But he never entirely lost touch with his earlier work, and his contributions to *THE CHEMIST AND DRUGGIST* on the tests for lead in citric and tartaric acids may be recalled. He also criticised for us the 1898 B.P. tests for lead in these acids and their salts. Mr. Warington lectured on agriculture at Oxford University, and about twenty years ago went to the United States to give a series of lectures on the Rothamsted work, which were so appreciated that one of the U.S. Agricultural Staff once told the writer "We look upon Warington as the man who has made our department possible." Mr. Warington had been a Fellow of the Chemical Society since 1863, and had served as a Councillor and Vice-President. He retired from his position at Rothamsted when Sir J. B. Lawes made a gift of the farm to the nation, and on that occasion Mr. Warington received a gift of plate from his fellow-workers and friends.

Personalities.

MR. E. G. MORLEY, who represents Messrs. T. Christy & Co. and others in Australia, is now on the way to England.

MR. O. ISGOED JONES, chemist and druggist, of Llanrwst, has decided to withdraw his candidature for the Pharmaceutical Council for the present.

MR. EDMUND WHITE, B.Sc., and Mr. P. F. Rowsell (of Holman Ham & Co., Exeter) have been nominated as candidates for the Pharmaceutical Council.

MR. COUNCILLOR C. E. FOX (W. Fox & Sons, chemists, Bethnal Green Road, London, N.E.), Mayor of Bethnal Green, on March 15 entertained the Council and other leading local men at a banquet.

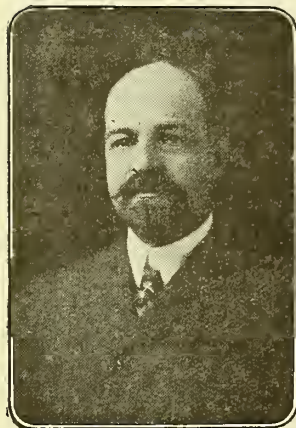
DR. W. H. POWER, C.B., F.R.S., head of the Local Government Board Medical Department, has been appointed Chairman of the Royal Commission on Tuberculosis in the room of the late Sir Michael Foster.

MR. J. D. MELLING, chemist and druggist, Tunstall, was entertained last week by the members of the Half-Holiday Cricket Club on the occasion of his leaving the town, and in recognition of his valued service as captain in 1905 and 1906.

AN appreciation of William Henry Weekes, of Sandwich, who demonstrated the existence of aerial electricity, is contributed to the "Deal, Walmer, and Sandwich Mercury" of March 16, by Mr. R. Goodwin Mumbray, pharmaceutical chemist, of Deal.

PROFESSOR FRANK G. RYAN, of Detroit, Michigan, who is on his return home after having made a tour round the

world with his daughter, Miss Ryan, is at present in London. Mr. Ryan was for fourteen years a popular and widely-known member of the faculty of the Philadelphia College of Pharmacy, which institution he left some seven years ago to join the staff of Messrs. Parke, Davis & Co. at Detroit. For some years he was chief pharmacist in the manufacturing department, and on him devolved the responsibility for deciding technical and pharmaceutical questions relating to formulæ, and also for the strict maintenance of quality standards. On the death of the late Mr. Warren, Mr. Ryan was elected a member of the Board of



PROFESSOR RYAN.

Directors, and in August 1905 he was appointed Secretary of the Corporation. Still more recently he was elected Vice-President, and these two positions he now occupies.

MR. GRAHAM MCKIE, formerly assistant to a Blackburn chemist and for the past ten years engaged in missionary work in China, was among the passengers on board the ill-fated liner *Suevic*. He and his wife and children were saved by the lifeboats, and it is an extraordinary coincidence that Mr. McKie was wrecked on his outward voyage to China ten years ago.

THE brother of Mrs. Joseph Ince who was the author of "Twickenham Ferry" (*C. & D.*, March 16, p. 415) was Mr. Theo. Marzials. The elder brother, Sir Frank T. Marzials, C.B., was on the War Office Staff, and Accountant-General from 1898 until his retirement in 1904, when he was knighted. Sir Frank is also an author, but his writings have been biographical chiefly. He edited, in conjunction with Mr. Eric Robertson, the "Great Writers" Series.

MR. GEOFFREY CHESHIRE, of Melbourne, Vic., who has been on a visit to England since June 1905, is returning by the R.M.S. *Mongolia* on March 28. Mr. Cheshire is a native of Colchester, and served his apprenticeship with Mr. W. E. Everett there. He went out to Australia in 1890, and came home in 1896 to study for the Minor, which he passed in July of that year. While he has been home now Mr. Cheshire has studied optics at the Northampton Institute, and took the Spectacle Makers' Company's diplomas last autumn. Since then he has been managing an optical business in the West-end of London. Mr. Cheshire expects to start business in Melbourne when he returns.

MR. ALFRED AUSTIN, Poet Laureate, communicated the following appreciation of Sir Thomas Hanbury to the "Times" of March 16:

It was my good fortune to stay with Sir Thomas in his lovely home on the Riviera on three different occasions, and I have the liveliest remembrance of his modestly but readily communicated knowledge of botany and horticulture, equally in the scientific and the more familiar sense of those words. The note of accuracy, arising from close observation and wide experience, was to be observed in all he said; and, while striving after perfection in his beautiful garden, he never imagined he had reached it. There were in it, if I remember rightly, some seventy different kinds of what most people call mimosa, but which he liked to tell them were not mimosas, but acacias; and one passed, in a few moments, from the primroses of the North to the palms of the Tropics. On awaking of a morning, I could see, westward, the castellated promontory of Monaco, and to the east the jutting headland of Bordighera.

But all this feast for the eye was, if possible, outdone by the helpful kindness of his disposition, and the refined, unostentatious hospitality in which Lady Hanbury assisted him with such quiet and simple graciousness. Nothing could deter him from driving one to Ventimiglia, if one was going on to Italy, and facilitating one's journey to the south. His gifts of gardens, trees, and shrubs extended for miles along the Riviera; and his promotion of elementary education in the nearer neighbourhood of La Mortola is enduring evidence of his beneficent action. At every humble threshold he was greeted with grateful smiles; and more than once I had the opportunity of witnessing, with him, the pathetic patience and pious resignation of the Italian poor under physical distress, which he did his utmost to alleviate. It is by them, outside his own home, he will most be missed.

THE PUBLIC SPIRIT among members of the drug-trade is further exemplified in the selection of the following gentlemen to public bodies. These are additional to the list already published (*C. & D.*, March 16, p. 413):

MR. A. Sidney Campkin, member of the Pharmaceutical Council, re-elected to the Cambridge Board of Guardians.

MR. Stephen Taylor, chemist and druggist, appointed a Justice of the Peace for the borough of Barrow-in-Furness.

MR. G. Stafford Allen, of Stafford Allen & Sons, Ltd., drug-grinders and essential-oil distillers, re-elected to Long Melford Parish Council.

MR. A. P. Barnard, J.P., chemist and druggist, Hackney Road, London, N.E., has been re-elected unopposed to the Bethnal Green Board of Guardians.

MR. Daniel Yates, chemist and druggist, has been re-elected to the Blackburn Board of Guardians without opposition. Mr. Yates has been on the Board for many years.

MR. Arthur A. White, chemist and druggist, who has been overseer of the poor for the parish of Beaconsfield during the past year, is a candidate for election to the Beaconsfield Urban District Council.

Problems of Applied Chemistry.

THE Friday evening discourse on March 15 was by Professor George Lunge, of Zurich, the well-known authority on the alkali-industry. Sir William Crookes was in the chair, and among the audience were many chemists, including Sir William Perkin, Sir James Dewar, Professor Meldola, Professor Silvanus Thompson, Professor Franklin, and Dr. Passmore. Professor Lunge began his lecture by a reference to the work of the Royal Institution, and defined applied chemistry as chemistry pressed into useful purposes. After referring to Great Britain's



DR. LUNGE.

work in this domain, the lecturer said that eminent practical men had thrown away much time and capital on inventions which turned out to be failures, but in some cases they were right in principle, and merely failed through some side issue. This happened, for instance, in the problem for recovering the sulphur from soda-waste, which Gosage tackled already in 1837 on the right path, but which was only solved (after partial successes obtained by Mond and by Schaffner) half a century later by Claus and by Chance. At that period of English ascendancy in the domain of chemical - industries, many

German chemists turned to this country and spent some years here, among them being the founders of what are now the greatest chemical-establishments in Germany. The intense development of chemical-industry in Germany is certainly due to the interaction of science and practical life, the former being previously too exclusively dominant there.

In other countries, such as in the United States, the chemical-industries have also wonderfully increased. In Great Britain, which formerly held the first place, this increase has not been equally fast; but there is no reason why here the combination of science and practice should be less operative than elsewhere—all the more as in this country so many instances have occurred of working out chemical ideas on a large scale by the aid of mechanical contrivances—an instance given being Mond's modification of Solvay's soda-process. Recently great progress has been made in the application of electricity to chemical-purposes. In that great field the greatest European coal-producers, England and Germany, are at a disadvantage against some other countries which possess large resources of water-power—a treasure which will be even more than at present appreciated when the age of coal has passed away. As even the available water-power on earth is limited, future ages will have to face the problem of obtaining power elsewhere, probably by a direct conversion of the sun's rays into other forms of energy. Our generation must devote itself to the more modest task of using its coal in a less wasteful manner than hitherto. This we must look for primarily in the direction of converting coal into gaseous fuel. This task has been combined in Dr. Ludwig Mond's "power-gas" with another of the most momentous problems of applied chemistry—viz., the utilisation of nitrogen from fresh sources, which is at the bottom of the question of increasing the production of foodstuff. In this connection he referred to Frank and Caro's process for making "lime-nitrogen" by the action of atmospheric nitrogen on electrically produced calcium carbide. Even more important is the production of nitrates from air, for these serve not merely as fertilisers, but are indispensable for the manufacturing of coal-tar colours and explosives. This task has received a very satisfactory solution through electricity by Birkeland and Eyde. The lecturer finally referred to problems belonging to the domain of organic chemistry, such as the substitution of artificial for natural colouring-matters, which task has been accomplished in the case of alizarine and indigo. A department of chemistry which

has not yet been even remotely touched upon is the direct synthesis of feeding-stuffs. It should be possible to prepare food from sawdust.

In the library there was an exhibit of chemicals by Messrs. Hopkin & Williams, Ltd., surmounted by a bell of camphor; a tableful of silica-ware by the Thermal Syndicate, Ltd.; and instruments by Mr. J. J. Hicks and Messrs. Townson & Mercer.

British Pharmaceutical Conference

A MEETING of the Executive Committee was held at 17 Bloomsbury Square on Tuesday, March 12. Present: Mr. Thos. Tyrer (President) in the chair; Messrs. Holmes, Naylor, Ransom, and Woolley (Vice-Presidents), J. C. Umney (Treasurer), Peck and White (Hon. Secretaries), Finnemore, Gadd, Howard, and Kemp. Apologies for absence were received from Dr. Attfield, Messrs. Alcock, Gerrard, Kirkby, Martin, and Dr. Walsh.

The President expressed regret that the cause of Dr. Attfield's absence was illness, and hoped that he would speedily regain his strength. Mr. Peck supported this expression, and was asked to convey to Dr. Attfield the sympathy of the committee. Votes of condolence with Dr. W. H. Martindale on the death of his mother, and with the relatives of the late Mr. Ebert, of Chicago, were passed.

Mr. Kemp presented a report of the progress made with the arrangements for the Manchester meeting. The Thursday excursion is fixed for Windermere, with a Friday view of the Ship Canal, and Messrs. Crosfield's works at Warrington for as many members as can stay for the extra day. After full discussion, the draft report was adopted with slight alterations, and, on the motion of Mr. Umney, seconded by Mr. Naylor, the warmest thanks of the committee were tendered to the deputation (Messrs. Kemp and Woolley) for attending and explaining the details of the arrangements. Mr. Kemp, in replying, mentioned that Mr. Kirkby (Local Secretary) would have been present but for a sudden attack of illness, from which he was slowly recovering. He also stated that he desired it should be widely known that members of any foreign Pharmaceutical Association who might happen to be in England during the Conference week would be heartily welcomed to all the gatherings.

The Treasurer read a short financial statement which he had prepared, showing a deficit on the general account, which he concluded would be practically extinguished by subscriptions still outstanding, and recoverable by the end of the financial year. A sub-committee was appointed to take steps to deal with the deficit on the index account.

The place of meeting for 1908 and the presidency for that year were discussed, and further consideration postponed until the next meeting.

The following twenty-nine gentlemen were elected to membership:

G. E. Scott-Smith, Sheffield.	L. Etherington, Royton, nr. Oldham.
S. Royce, Nottingham.	T. Shackleton, Oldham.
E. Oswald Jones, Brynmawr.	J. Lees, Oldham.
Professor Ryan, Detroit, U.S.A.	L. G. Radcliffe, Manchester.
G. T. Huband, Dcrintend Bridge.	C. Brown, Manchester.
Allen Smith, Sale.	G. H. Cooper, Manchester.
J. W. Unsworth, Altrincham.	J. Tyson, Manchester.
J. W. W. Brayne, New Mills, Derbyshire.	C. Charnley, Manchester.
C. Charnley, Southport.	G. A. Williams, Manchester.
H. Crompton, Bury.	Jas. Sowrey, Manchester.
S. Hewitt, Ashton-under-Lyne.	Urban A. Jackson, Manchester.
T. A. Ward, Blackburn.	Wm. Wyatt, Manchester.
H. Bagshaw, Oldham.	T. Woodruff, Manchester.
	D. Lewis, Manchester.
	H. Garnett, Manchester.
	A. Hershberg, Manchester.

THE PRICE AND THE EFFECT.—"An ounce of Epsom salts, please." The packet is duly supplied. "How much?" "One penny." "You are not the drug-stores, are you?" "No, madam." "They give you so much for a penny—a quarter of a pound. I haven't anything to say about it, but they make my head ache."

Westminster Wisdom.

(From our Parliamentary Representative.)

IN THE LOBBY.

"This has been the quietest night I have yet experienced in the House of Commons," said Mr. Philip Snowden, the Labour member for Blackburn, as we sat in the Lobby corridor on Monday evening (writes a *C. & D.* Lobby-lounger). "The business is absolutely uninteresting except to a very few, and there is not the least chance of the Pharmacy and Poisons Bill coming on to-night." That there was no immediate danger of the Government Bill being brought forward was evident from the fact that Mr. Winfrey and Mr. Idris were engaged in an earnest and animated, but withal leisurely, conversation with Mr. Rymer Young, President of the Pharmaceutical Society, and one of the secretarial staff. The confab lasted for an hour, but during that time Mr. Young had sent for Mr. Crosfield, member for Warrington, and introduced him to Mr. Winfrey and Mr. Idris. The conversion, or tuition, of Mr. Crosfield was undertaken by Mr. Idris, with the President as an eager coadjutor, and finally Mr. Crosfield left the group in apparently the best of humour. Meanwhile Mr. Snowden and I talked of Pharmacy Bills, and I found him quite conversant with the state of affairs in pharmaceutical legislation. "Oh, I know all about both the Bills," he smiled; "Mr. Lord Gifford, one of my constituents, sees to that. He has kept me well posted on all that is going forward, and, of course, I am on the side of the chemists." We discussed the points of the opposing Bills, and it was quite evident that Mr. Lord Gifford had been an efficient coach and Mr. Snowden a receptive pupil. Mr. Snowden did not hold out much hope of the Government Bill being brought forward in earnest for some time to come; certainly not this side of Easter. I gathered that the business down for Monday evening might have been pushed along to the point of considering the Poisons and Pharmacy Bill, which was sixth in the orders, but there seemed to be as much fear as desire of its being reached.

THE POISONS AND PHARMACY BILLS.

A good deal of comment has been excited, writes our Parliamentary representative, by the fact that Mr. Cross has removed his blocking motion to Mr. Winfrey's Pharmacy Bill and Mr. Field his motion in regard to the extension of the Government's Poisons Bill to Ireland. Up to the moment of writing I have not been able to obtain an explanation of their action. Mr. Field, indeed, has not been at the House for some days, and it would seem, therefore, that he must have requested the withdrawal of his motion by letter. No further progress has been made with either Bill. The week-by-week postponements still continue, both now standing for second reading on Monday next.

SOCIETY OF APOTHECARIES BILL.

This House of Lords' Bill has now been reported, with amendments, and waits the third reading. On Tuesday afternoon the Bill came before the Select Committee on Unopposed Bills, the Earl of Onslow presiding, and was ordered to be reported to the House.

PATENT LAW REFORM.

Mr. Lloyd-George, President of the Board of Trade, introduced on March 19 a Bill to amend the law relating to patents and designs, and also stated that a Consolidation Bill will shortly be introduced. The Bill, he explained, is to prevent the patent laws being used for the hindrance and suppression of British industrial development. At present the patent laws are largely utilised by foreigners to prevent the patent being worked in this country. The new Bill is to put a stop to the vague terms which are used in patent specifications, and held to cover inventions afterwards made. The compulsory-licence clauses introduced in the last Patent Act have been found to be unworkable. It is now proposed to make compulsory licensing effective without cumbrous and expensive litigation. It cost Mr. Levenstein 4,000*l.* to expose the futility of the present machinery. The Patent Office is to have the power of calling for samples in cases of vague and comprehensive claims. Mr. Lloyd-George instanced the case of chemical patents. At present a foreign inventor inserts in his specification every possible combina-

tion without ever having tried them. This worked against the British inventor, who afterwards made a discovery which could by some means be covered by one of the suggested combinations. A powerful foreign syndicate has been in operation for some time, and this syndicate would bring an action against the British inventor for infringement of patent. They included possibly as many as fifteen or sixteen counts in their indictment; they employed the ablest and consequently the most expensive counsel at the British Bar; and the best scientific experts. The result was that the poor British inventor, before there was time for his invention to take root or to become a success, was simply overwhelmed by this tremendous combination. In that way many British industries have been wiped out. Another important feature of the Bill is to be the prohibition of restraining-clauses on the sale of patented articles. The practice has been held to be legal, and not in restraint of trade. A man selling a bootmaking-machine, for instance, will make it a condition that no other machine be used at the factory for twenty years. These conditions will in future be nugatory. The Bill, which was introduced under the ten-minutes' rule, was well received, and loudly cheered as the first reading was announced.

METRIC SYSTEM BILL.

Mr. Straus's Bill to make the metric system compulsory in the United Kingdom stands first for discussion on Friday, March 22; but the Labour Party is against it, and in spite of persistent and clever advertising by the Decimal Association the Bill is likely to share the fate of the Women's Franchise Bill.

The President of the Board of Trade stated on March 19, in reply to a question, that the Board see no reason to alter a conclusion, arrived at some years ago, that it is undesirable that such a departure from general trade-practice in this country as the introduction of the metric system in Government departments and factories should be made.

SYNTHETIC INDIGO.

Mr. Morley promised Mr. Rees on March 18 that he would endeavour to obtain authoritative information as to the cost of manufacturing synthetic indigo, to be placed at the disposal of Indian indigo-growers.

HAFFKINE'S PLAGUE-PROPHYLACTIC.

Mr. Morley, in a printed reply to Sir William Collins on March 19, said that Dr. Haffkine is in the permanent employ of the Government of India on research-work. The Government continue to recommend the use of his prophylactic as a precautionary measure. The fatal cases of tetanus in the Punjab consequent upon the use of the prophylactic have been inquired into and the results published by the Indian Government. Sir William has moved for a return of the papers containing the results.

NOTES.

Sir Charles Dilke's Shops Bill (No. 2) was withdrawn on March 12.

Mr. Bottomley is concerning himself in regard to the Nutriola Co., 9 to 15 Oxford Street, London, which, he says, is under the ban of the U.S. postal authorities; and on Thursday asked Sir Edward Grey if Mr. Finn, who gave the company a testimonial, is still British Consul at Chicago.

The Character-note Bill introduced by Mr. Bell makes it compulsory upon employers to supply a reference-note to a person leaving their employment and desiring one, and makes wilful and malicious false statements respecting the character or competence of the applicant punishable on summary conviction by a fine not exceeding 25*l.*

NURSES' REGISTRATION.

Mr. Munro Ferguson re-introduced on March 14 the Nurses' Registration Bill. This matter was reported upon by a Select Committee in 1905, following on the re-introduction of the Bill of the same title in that year.

Mr. Claude Hay introduced on March 19 a Nurses and Private Nursing Homes (Registration) Bill "to provide for the better training and registration of nurses, and for the voluntary registration of private nursing-homes."

THE importation and sale of opium and its alkaloids, as also of hypodermic syringes, in Costa Rica has been restricted to apothecaries and doctors.

Observations and Reflections.

By XRAYSER.

Messrs. Elliman's Letter

asking "Is Protection Worth While?" demands serious attention. Messrs. Elliman were pioneers in the system of profit-protection, and though they have preferred to make their own terms and establish them by their own methods, it has never been suggested that they have failed to enforce their conditions. Probably there is no more securely protected proprietary medicine in our shops to-day than Elliman's embrocation. If this be so, it will be admitted that to utilise the firm shilling of this article as a jumping-off stand for the exploitation of an imitation at 10½d. is a particularly shabby piece of competition. Messrs. Elliman say they have "abundant evidence" of this meanness. I have not actually observed any instance of the kind, but I am quite ready to believe that the practice exists. How, then, are we

To Answer the Charge?

It is not easy. A dozen, fifty, a hundred letters from chemists indignant with the trade traitors will not remedy the injury they do to us all, nor is there any legal means of compelling them to desist. Doubtless the great majority of chemists if they do not manifest enthusiasm have acquired a feeling of contentment with the business in proprietary articles since the era of protected profits set in, and it is reasonable to deduce that this new contented disposition must have reacted favourably on the interests of manufacturers. But it is more difficult to estimate the possible benefit from this source than the certain injury which may result from the unfair conduct which has been described, and which naturally stings those who have sought to act generously.

The Status of Quacks

is to be legally defined. Mr. Labouchere in "Truth" designated a Dr. Dakhyl, one time physician to the Drouet Institute for Deafness, as "a quack of the rankest species." Dr. Dakhyl objected to be so ticketed, and claimed damages. He was not a registered medical practitioner in this country, but it appeared that he had qualified as M.D. of Paris, and that he held other diplomas. These were evidence of skill and knowledge, and the Lord Chief Justice, before whom the action was tried, told his jury that to justify the designation of quack they must find that Dr. Dakhyl was "a pretender to skill which he did not possess." On that direction, for the higher courts hold that it was a direction, the jury found a verdict for the doctor, and awarded him 1,000l. The Court of Appeal and the House of Lords have since ruled, however, that a person may still be a quack even though he possess skill and knowledge, and they consequently order a new trial on the ground of misdirection.

It is Curious

to note, however, that the Lord Chief Justice's definition of a quack is supported by most of the dictionaries. "An ignorant pretender to medical and surgical skill," says the latest and most authoritative of them, and the others generally agree. This is all the more curious, because it is common knowledge that quacks are often skilful enough, and that clever men are often quacks. The idea pervades our literature. Carlyle, for example, regarded most people as quacks. The statesmen of one party are generally quacks to the other. It is curious, too, that the term "quack" and, to a large extent, its near relatives "charlatan," "mountebank," and "empiric" have

all acquired a special association with medicine. This association did not exist originally with any of them. A quack is etymologically a cackler; a charlatan is a prattler; a mountebank is one who mounts a bench; and an empiric is one who is guided by experience. Lastly, it is curious and perhaps significant that the term "quack" should have reached us in connection with the oldest of pharmaceutical products. The quacksalver in old English and the kwaksalber in old German came to mean an itinerant or boastful purveyor of all medicinal remedies; but clearly he was originally a person who cackled about his salve. Compare with this the oldest existing allusion to the art of the apothecary (Exodus xxx. 23-25) and several other mentions of him in the Bible, which represent him especially as a compounder of ointments.

Sunday Closing by Rotation,

says the Paris correspondent of the *C. & D.*, has been provided for by eight *pharmaciens* of Versailles. Each of these, I understand, will open his pharmacy on only one Sunday in eight weeks, and the one who is open will on that occasion do all the pharmaceutical work which without this arrangement he and the other seven would have been doing. Sensible *pharmaciens* of Versailles. Many British pharmacists will probably agree. But will they follow the example? Not they. They will go on talking about their hardships, their long hours, and their Sunday confinement, but it does not appear that they want to get free of these. They hug their chains. Pharmacists and other traders moaned piteously about their scant evening leisure until the Shop-hours Act was passed and relief was in their grasp, and when they got it there they had no use for it.

The Financial Storm

of last week was all the more alarming by reason of the apparent insufficiency of the causes alleged to have produced it. The nation is at peace with all the world; it is unprecedentedly prosperous; there has been no speculative mania; revenue is well ahead of expenditure; the Government broker, it is said, is buying some fifty thousand pounds' worth of Consols daily; gold imports are largely on the increase; and yet gilt-edged securities fall to record depths, the 5-per-cent. Bank rate looks more like advancing than receding, bankers are nervous, investors are timid, and the commercial community is anxious. If we are liable to this depression when all the surroundings seem favourable, what might not now be the consequences of really dangerous conditions? For the business of the world is something very different from what it was when the Overend & Gurney panic occurred in 1866. We glory in the vast enterprises and the new industries of our day, and in the astonishing expansion of our trade. These, of course, add to the risks of financial disaster. We recognise the growing cost of government, of armaments, and of wars; but we pay these and recover again and again. It is computed that the stock of actual money, of gold and silver, in the country is under two hundred millions, and we are doing a foreign trade of a thousand millions, and the cheques which pass through the Clearing House represent twelve thousand millions a year. The gold and silver are merely change; but they are essential, and no one can guess what would happen if they were to run short of actual requirements. All the rest of the work of the world is done on credit, on mutual trust. Destroy that credit for a day, or even disturb it seriously, and we may fall into the condition of France with her *assignats* in 1795, when "commerce was stopped, and only betting remained."

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Cod-liver Oil.

THE results of this season's Norwegian cod-fisheries up to date and the situation in the market for refined oil, which we have given week by week, show that the fishing has so far been disappointing. It will be remembered that the Lofoten fishing commenced under very promising auspices, both as to quantity and quality of cod, but continuous bad weather has restricted operations everywhere. The result is that the position has materially altered, and since the principal fishing commenced an advance of fully 20s. to 30s. per barrel has taken place in the "f.o.b." quotations. Whether we are to see a continued upward movement entirely depends on the remainder of the fishing. The weather in the Norwegian fishing districts is as variable as in this country, but the Finmarken fishing-grounds, to which the fleet will repair after Easter, may yet make partly good the deficiency in the southern districts. It need hardly be pointed out that Finmarken oil is not to be compared with that of Lofoten. The following statistics show the total output up to March 11:

Lofoten.

Catch to March 11			Final Report (end of June)	
—	Cod	Yield	Cod	Yield
	millions	hect.	millions	hect.
1900 ...	2.9	3,560	8.4	10,760
1901 ...	4.0	4,400	12.9	15,900
1902 ...	4.7	3,200	14.3	9,600
1903 ...	0.1	40	14.0	625
904 ...	1.5	450	12.3	3,300
1905 ...	2.3	2,100	13.4	11,500
1906 ...	5.2	5,500	18.5	17,000
1907 ...	3.0	3,600	—	—

The Whole of Norway.

Catch to March 11			Final Report (end of June)	
—	Cod	Yield	Cod	Yield
	millions	hect.	millions	hect.
1900 ...	7.0	9,000	36.8	32,800
1901 ...	10.4	11,400	38.7	35,300
1902 ...	11.0	7,300	43.6	22,500
1903 ...	2.1	690	42.3	2,800
1904 ...	10.9	4,500	49.6	18,500
1905 ...	6.7	6,000	44.7	41,900
1906 ...	14.7	15,500	45.2	42,500
1907 ...	6.0	6,800	—	—

It will be seen from the above that with the exception of last year the principal production of oil took place after March 11, but that there is now a deficiency of 8.7 million fish and 7,500 barrels of oil as compared with the same date of last year. It will also be noticed that the total quantity produced in 1906 reached the high figure of 42,500 hect., or practically 37,000 barrels, and that 1905 was also a prolific year. With the increased output consumption has also increased, but in spite of this there is still a moderate amount of 1906 oil held in Norway and in London. Much of this oil, although of good non-freezing quality, is offered at considerably under the prices asked for new crop, and some quantity has changed hands this week at between 78s. and 90s. on the spot. These floating parcels prevent the full advance being paid in some instances, but where oil is required for prompt delivery and early shipment Norwegian exporters have been able to obtain from 85s. to 105s., c.i.f. The result is that exporters are not so eager for business for forward shipment until the final results at Lofoten are declared. Since the prolific Norwegian catches, Newfoundland oil has sunk to a low figure and has been obtainable at 2s. 6d. per gal., or 62s. 6d. per barrel, which may be considered cheap in comparison with Norwegian. At this price, however, little inducement is held out to refiners, and the quantity of oil manufactured in Newfoundland has declined. Further particulars of the situation in Norway will be found in our Bergen cablegram on p. 461.

Since the above was put in type there has been a sudden and rapid advance, full particulars about which will be found in our Trade Report. The situation is one that calls for caution, as our latest intelligence is that the "fishing outlook is more satisfactory."

Modern Trading.

THE increased attention which retail chemists have recently been given to trading-methods is one of the encouraging features of the times. We are so accustomed to hear pessimistic views about the condition of retail pharmacy and its future, unless Parliament intervenes to save it, that a dash of optimism is refreshing, particularly when it takes a practical turn and exercises the energies of the individual trader. We have that this week in a paper read by Mr. Blain to the Manchester Pharmaceutical Association (p. 453), and even our friends in the Potteries required the casting vote of the Chairman to decide that chemists to-day do not get as much out of life as their predecessors did. We commend the debate on the question to the pessimistic (see p. 451). An essential fact in the consideration of such matters is that chemists who follow strictly the methods of their predecessors do not get so much out of their business, and infinitely less out of life. Retail trading in all branches has changed (we speak generally, and recognise that there

are specific survivals) because customers have changed. The old days of quarterly salaries are gone, and booking-trade is practically dead in industrial centres. Cash buying is the rule, and it has shorn the shopkeeper of the larger profits which were fair and necessary under credit conditions. The new trading has brought with it, even into pharmacy, those business-methods which attract customers and increase sales, because the chance customer has not always the merit of constancy which is regarded as the attribute of the booking customer. To get the most out of the new conditions expertness in selling has become necessary to the retail chemist, but there are indications that the sequential attribute, keenness in buying, is not so widely appreciated. A large proportion of retailers have not yet realised that the long credit they require from wholesale houses is the equivalent of the conditions between retailers and their booking customers, and is one of the most potent influences which retard retail enterprise. None know this better than wholesale houses; the retailers who take the largest discounts possible are found to be the most satisfactory buyers to deal with, because they buy well and often, while those who take "keen buying" to mean asking for a pound at the hundredweight price and expecting six months' credit rarely make a big business, and a fortune only by pinching. The trend of the times is net prices and prompt payment. We have had evidence of that lately by the publication of net price-lists by several wholesale houses, and it is well understood that the cash-system is welcomed by many as conducive to the interests of buyers and sellers. It is certainly growing in many directions; it has, for example, long existed in the proprietary-article section of the trade, and many foresee that its extension to all sections is only a question of time. There are undoubtedly difficulties in regard to general or scrappy orders, but these have been got over in the case of retailers' customers, and will be as betwixt retailers and wholesalers. Prompt and cash payments add greatly to the profits of a business and to the selling-power of the business-man. The fact that the goods on his shelf are paid for stimulates him to turn them into cash by selling them to his customers, and thus keen buying is a natural stimulus to expertness in selling.

Accidents in Pharmacies.

THE Workmen's Compensation Act, 1906, will come into force on July 1 of this year, and it will apply to chemists equally with all other employers of labour remunerated at a less rate than 250l. a year. From the broadly practical point of view a full exposition of the law and its intricacies is unnecessary in these columns, because our readers are mainly concerned about the circumstances and extent of their liability under the Act. Moreover, there are scores of moot points about the Act, definitions to which there are exceptions, and other considerations of a forensic character which prevent anything in the nature of conclusive statement. The essential fact is that if in the course of his employment a workman sustains personal injury by accident, his employer is liable to pay compensation as follows:

In the case of death not less than 150l. nor more than 300l. if the workman has dependents, the sum not to be more than three years' wages, or 156 times the average weekly wage if the workman has been less than three years in the employment. In cases where there is only partial dependence the sum paid may by arbitration be modified, and where there are no dependents a sum not exceeding 10l. for medical attendance and burial.

In the case of injury, nothing is to be awarded if the workman is incapacitated for less than two weeks. If the incapacity lasts longer he gets not more than half his weekly

wages, nor more than 1*l.* per week, from the end of the first week, and a person under twenty-one gets not more than 10*s.* a week.

Provision is made for compensation to those injured within the first two weeks of employment; in fact, there is no escape for the employer when an accident to his workman happens during the employment, even though the workman may not actually be at work at the moment, except it is attributable to the serious and wilful misconduct of the workman. Under the older Acts a wrongful or tortious act of a fellow-workman or stranger relieves the employer from liability. If the accident is due to the negligence or wilful act of the employer, or of some person for whom he is responsible, the Act does not affect his civil liability, which in many cases would be greater than under the Act. Members of the employer's family cannot claim compensation, and they include wife or husband, father, mother, grandfather, grandmother, stepfather, stepmother, son, daughter, grandson, granddaughter, stepson, stepdaughter, brother, sister, half-brother, and half-sister. Sometimes mothers-in-law, nephews, nieces, and the like are members of the family in the ordinary sense, but they will rank as "workmen." In the case of indoor assistants 25*l.* a year is reckoned for board and lodging, to be included in the sum upon which the average is struck. Those who wish a full exposition of the Act should read Mr. W. Ellis Hall's book on it, published by Messrs. Waterlow & Sons, Ltd., at 3*s.* 6*d.* net. It is concise and informative, and gives decisions under the older Acts. To our subscribers the matter is reducible to the question: Shall I or shall I not insure? The great objection to insurance is that it breaks down amicable relationship with one's employes to the extent that when an accident happens to an employé the employer must hand him over to the tender mercies of the insurance company, which, while relieving the employer of responsibility, requires him to act as its agent as soon as the workman meets with an accident. This should be considered; but, on the other hand, a comparatively small payment annually for a lifetime will, as Mr. Pilkington Sargeant said at Leeds, never amount to a year's compensation for temporary injury. In this connection we learn that the leading insurance companies have fixed the rate for assistants in chemists', photographic-apparatus dealers', and opticians' shops at 6*s.* per cent. on the wages paid. This is also the rate for vanmen and errand-boys engaged delivering goods from chemists' shops, and it will cover accidents to errand-boys who use a cycle. One or two offices, however, make a charge of 30*s.* for an errand-boy if cycle-risk is included. Clerks in chemical-warehouses, etc., are subject to a special rate—viz., 3*s.* 6*d.* and 5*s.* per cent. on wages—but where only one or two clerks are employed most of the companies propose to class them as assistants. In many cases the insurance companies have fixed a fourteen-day limit for notice of accidents, and some say within a reasonable time. It must be kept in mind that the Act gives six months for lodging a claim.

The Bills.

"An extraordinary Bill" is how the Co-operative Societies' organ dubs the Pharmaceutical Society's Pharmacy Bill. In the course of its remarks our contemporary hazards this brilliant opinion:

If the word "poison" were intended to have a reasonable interpretation, and the object of the Bill to protect the public against careless prescriptions, there would be little to say against it; but, unfortunately, there is no doubting the fact, after perusing the Bill carefully, that sealed packets (*e.g.*, patent medicines and pills) can and will be brought under the purview of the Bill. Now, as everybody knows, there is scarcely a pill or a patent medicine extant which does not contain some proportion of poison, and as

the Bill provides strict injunctions against "companies, co-partnerships, and bodies of persons," it will be seen that the matter is one of concern for co-operators.

If Co-operative Societies are not yet aware that they cannot at present sell poisons in any form without the intermediary of a registered chemist, they had better put their houses in order. In regard to the Government Bill and its "insecticide clause," the "Field" says: "As the measure is strongly advocated as a necessity by the Board of Agriculture, there is very little doubt about its passing." Perhaps, but a significant occurrence has happened since our last issue. Mr. Cross has withdrawn his blocking-motion as to the Pharmacy Bill, and Mr. Field his motion that the Government Bill should extend to Ireland. What does this sudden action of the agricultural-poison champions imply?

Company Legislation.

As mentioned in the *C. & D.* last week, Lord Hylton introduced in the House of Lords on March 13 a Bill to prohibit joint-stock companies from acting as physicians, surgeons, or medical practitioners, and another to prohibit companies from carrying on practice as dentists or dental surgeons except by means of duly qualified persons. The Bills are those promoted by the General Medical Council. They were introduced into the House of Commons on June 26, 1906, by Sir John Tuke, and were printed in the *C. & D.* July 1, 1906, p. 19. There is no textual difference, but in the memorandum to the medical Bill we learn that it

applies to existing companies, but does not apply to companies formed to carry on business as manufacturers or sellers of medical, surgical, or dental appliances or preparations, pharmaceutical chemists, or chemists and druggists.

The Bills made no progress last Session. It is understood that the Privy Council sympathises with them. The quoted titles of the Bills sufficiently indicate their object. It may be again observed that the dental Bill is not so prohibitive as the medical one, and that the use of the title "dentists" is not specifically mentioned in the former Bill. The permissive section applies solely to carrying on the business of a dentist, which may be done so long as it is wholly carried on by managers, assistants, or persons who are registered dentists, and their names are posted outside the business premises. A sub-section makes a company, like an individual, liable to the penalties for offences under the Dentists Act. There are practically only two offences, viz.: (1) Unlawful use of the title "dentist," and (2) disgraceful conduct in a professional respect. As the penalty attached to the latter is erasure from the Dentists' Register, it cannot apply to dental companies; so that we are forced to the conclusion that the sub-section may be taken to mean that it will be an offence for companies to use the title "dentists." It would be of value to have this declared more clearly, as the principle is important to all individuals who acquire a title under statutory conditions that companies cannot fulfil.

Information Wanted.

Inquiries for the names and addresses of manufacturers, or other trade information, not traceable by reference to the advertisement-pages of "The Chemist and Druggist" and the "*C. & D.* Diary," or not filed in our private register, are inserted here free of charge. Postcard or other replies to any of the subjoined inquiries (addressed to the Editor "The Chemist and Druggist," 42 Cannon Street, London, E.C.) will be esteemed.

67/28. Who are the makers of Delphin filters?

67/7. Who is the maker of "Cow's Relief"—a veterinary remedy?

66/3. What is heliosine or heliosidine, or where can it be obtained? It is used as a diuretic.

The Winter Session of Chemists' Associations.

Association Presidents.

THE majority of retail chemists imagine that the most delightful of all recreations—travel—is denied to them, but from



MR. C. G. SKYRME, Ph.C.

time to time we have been able to show how some of their *confrères* have visited foreign parts without sacrificing a bit of business—indeed, bringing back new ideas to further it. Did not Mr. Idris pick up the syphon-soda idea when on a visit to Paris? We have another example this week in the President of the East Sussex Pharmaceutical Association, Mr. Charles George Skyrme, Ph.C., whose last big excursion was to South Africa with the British Association. Mr. Skyrme was born at Cwmaman, educated at the Cardiff College, and apprenticed to Mr. Robert Dranc, Cardiff. He left there to go up for his examinations, and passed both Minor and Major at the first attempts, and both in 1886. He then went as dispenser to Mr. Stickland, South Kensington, for a year; from there for another year to Mr. Sells at Tunbridge Wells; then he bought the business carried on by Mr. F. C. Neve, Ph.C., in St. Leonards, altering the title to Neve & Co. The business has continued to prosper ever since. Mr. Skyrme has been President of the St. Leonards Chess Club since its formation six years ago, and is a prominent member of the Hastings and St. Leonards Chess Club, which has a world-wide renown. On two occasions he was second in the championship of this club, and in 1899 took part in the first tour conducted by a chess club, and playing against the North of England and Scotland, the team returned victorious. In 1901 he was one of a team that played against the West of England, Wales, and Ireland, the Hastings club winning every match. In 1903 he was one of ten players who went to Germany, and played the Germans in their own towns, and this tour resulted on the total in a win for the Hastings club. During the matches Mr. Skyrme lost only one game. He acts as match secretary, and for the 1907 season has arranged forty-six matches, of which up to now the club has not lost one. As to his travels, Mr. Skyrme has visited most European countries, and also the United States of America and Canada. As already stated, in 1905 he went with the British Association to and through South Africa, and on his return gave an address about the tour to the East Sussex Pharmaceutical Association; to the Chemists' Assistants' Association in London, and to the Chemists' Association and Philosophical Society at Brighton.

North Staffs Chemists' Association

A MEETING was held at the Roebuck Hotel, Stoke-on-Trent, on March 14, Mr. J. Averill, J.P. (President), in the chair. The company included Messrs. Edmund Jones and T. C. Cornwell (Vice-Presidents), Weston Poole (Treasurer), T. Bentley (Hon. Secretary), W. B. Allison, J. B. Blades, J. Kemp, S. Challinor, F. C. Burrell, and W. Brinson (Evans Sons Lescher & Webb, Liverpool). The purpose of the meeting was to debate the question:

DOES THE CHEMIST OF TO-DAY GET AS MUCH OUT OF LIFE AS HIS PREDECESSORS DID?

This had been suggested by Mr. W. S. Glyn-Jones at the Association's annual dinner. The debate was opened by Mr. T. C. Cornwell (Hanley), who contended that chemists make more money nowadays, it costs them less to live, their luxuries and comforts are greater, and the drawbacks are considerably less than in the preceding generation. As a whole the present condition of the trade is better, the shops are more attractive and better kept, hours are shorter, holidays are more, and the wages of assistants are higher. Organisation is also stronger (particularly the P.A.T.A.). The chemist is not quite so tied in his business as he used to be; he is more independent, and not so bound to please any particular class. The cash system now obtaining is preferable to the credit system of the old days. Purely pharmaceutical chemists are a diminishing quantity, but side-lines make up for what they have lost in that way.

Mr. Weston Poole (Newcastle-under-Lyme) considered that chemists have benefited by the better state of living generally with the other members of the community, but not because they are chemists. To make money is not the basis of all good, and should not be their only aim. All shops, even to-day, do not close early, especially in the suburbs of the large cities. Credit is very useful in some cases. As for side-lines, it is a great shame that chemists should have to pass stiff examinations to sell side-lines. The stringency of the examinations is increasing, but there is precious little protection, and chemists are not even safe on poisons, which can now be sold by companies of unqualified traders. The increase of unqualified practice is enormous. Then, too, dispensing doctors rob the chemist to a great extent. Chemists are not looked upon with as much respect as in the old days; they now buy goods ready packed, and are becoming only sharp business-men. Their shops are looked upon as depôts for nostrums. As a practical chemist the old chemist was infinitely superior to the modern chemist. Chemists are now regarded simply as shopkeepers.

The subsequent discussion showed evenly divided opinion. Mr. J. B. Blades (Leek) considered that the old chemists made more money. Mr. E. Jones put as a set-off to this that the modern chemist gets more out of life, in the way of holidays and social enjoyments, but he has to work harder and sell more goods at smaller profits; Mr. Allison supported Mr. Poole, and the President held that the chemist is not to-day as well off as he used to be. Personal attendance at business, he thought, is quite as necessary now as in the old times, when the social position was superior. Family businesses must have a credit system; they could not always ask for cash. Mr. Averill having to catch his train, Mr. E. Jones took the chair, and at the conclusion of the debate a vote was taken, but it needed the Chairman's casting-vote to decide the issue, and this was given to Mr. Poole's view of the question.

OTHER BUSINESS.—The profits of the whist-drive were voted to the Pharmaceutical Benevolent Fund, and the donors of prizes were thanked.—Mr. J. B. Blades was appointed delegate to the Federation of Pharmaceutical Associations Conference in May.—A vote of thanks was accorded to Mr. R. A. Robinson for his great services to pharmacy during his presidency of the Pharmaceutical Society, and congratulations were extended to him on his London County Council success.

Liverpool Chemists' Association.

A MEETING was held at the Royal Institution on Thursday evening, March 14, Mr. J. T. Hornblower (President) in the chair. Messrs. P. A. Greenwood, W. H. Dowler, and W. H. Parkinson were elected members.

AN UNUSUAL LINTMENT.—Mr. A. S. Buck said he had had the following lintment to dispense:

Lanolin.	...	...	...	5ss.
Ung. hyd. nit. dil.	...	...	...	5ss.
Æther.	...	...	...	3ij.
Boracis	...	...	...	5ij.
Aquam ad	...	...	...	5iv.

He put the ether into a 6-oz. bottle, melted the ointment with the lanolin, and poured into the ether, then added the borax dissolved in the water. It came out well.

HOW TO MAKE AN INCOME-TAX RETURN.

This was the subject of a paper by Mr. J. Shacklady, who said he was under the impression the great majority of chemists pay too much income-tax, and submitted in many instances to assessments which, with properly kept books, they would be able successfully to appeal against. He gave several instances of the kind from his own experience. He then briefly sketched the required statistics, and indicated the manner in which these might be registered during the financial year so as to be available at the end for income-tax returns. Stocktaking, either annual or triennial, is of supreme importance, not only for the purpose of income-tax returns, but also for the good order of stock-keeping, the discovery of duplicates, and the elimination

of useless items. He advocated for this purpose the Liverpool Chemists' Price-list, somewhat modified, and submitted the following model income-tax statement :

March 31, 1906 :				March 31, 1907 :			
To stock	...	£350	1 7	By sales for year	...	£1,200	17 11
March 31, 1907 :	...			" stock	...	320	5 3
" purchases for year—net	...	700	3 4				
" balance carried down	...	470	18 3				
		£1,521	3 2			£1,521	3 2
March 31, 1907 :				March 31, 1907 :			
To year's rent	...	£40	0 0	By gross profit	...	£470	18 3
" rates and taxes	...	15	0 0				
" telephone rent and charges	...	10	7 6				
" carriage and postages	...	2	5 0				
" licences	...	0	15 0				
" gas (and or electric light)	...	3	10 0				
" trade subscriptions	...	2	10 0				
" fire, plate-glass, employers' liability, and burglary insurance	...	2	0 0				
" bad debts	...	3	5 0				
" repairs and replacements	...	2	15 0				
" stationery, labels, and printing generally	...	7	10 0				
" advertising	...	4	10 0				
" assistants' wages and keep	...	110	0 0				
" boy and casual labour	...	14	13 0				
" balance	...	250	17 9				
		£470	18 3			£470	18 3
March 31, 1907 :				March 31, 1907 :			
By net profit for year £250 17 9							

The items were explained. "Purchases" stand for what is actually paid during the year, instead of what has been actually bought. The same with the sales, generally spoken of as "returns." This figure is usually taken to mean the amount of cash received during the financial year, but as a matter of fact it ought to consist solely of the cash sales over the counter and bookings during the year under review. It is necessary to place the amounts received from the payment of accounts into a separate receptacle from that devoted to the cash sales.

An interesting discussion took place, in which Messrs. Cleave, Marsden, Buck, Percival, and Thompson took part, several members contributing some amusing experiences in regard to income-tax.

Another paper of trade interest was then read by Mr. T. F. Percival. It dealt with the effect upon chemists of

THE NEW WORKMEN'S COMPENSATION ACT.

This Act, he said, is one of the most revolutionary that has ever got on the statute-book, first because it places a potential value upon labour which it has not previously possessed; and, secondly, it gives a status to illegitimate children previously denied. It is a most inclusive Act, but there are six classes who are not touched by it, viz.: (1) Those whose incomes are 250*l.* or more annually; (2) casual employes; (3) police; (4) navy and army, and possibly Volunteer forces; (5) out-workers not under supervision; (6) members of the family of an employer. Mr. Percival then showed that the chemist and druggist, besides being affected by the Act in his domestic relations, will in business have to reckon with probable claims from manager, assistant, apprentice, porter, window-cleaner, and errand-boy. For all of these he will be liable, unless the window-cleaner be under orders from a company which employs him. If, on the other hand, the man be a jobbing window-cleaner employed casually by the chemist, he will, in the event of accident, claim on the chemist. Mr. Percival also commented upon the forms of insurance, and quoted the following from the "Daily Mail" as a good one, covering all risks :

M—O— (hereinafter called the employer) having paid to the above company the sum of on account of the premium for the indemnity hereafter mentioned, it is hereby agreed as follows:

The company indemnifies the employer fully and com-

pletely against his or her entire liability (including costs), however protracted, under or by virtue of

The Workmen's Compensation Act, 1906;

The Employers' Liability Act, 1880;

Lord Campbell's Act, 1846;

The Common Law;

The Workmen's Compensation Acts, 1897 and 1900;

in respect of any injury, fatal or non-fatal, which, the time or times during the continuance of this policy, shall happen to any servant while in his or her employ and performing work for him or her. The company, in cases of non-fatal accidents, will, in lieu of the payment of half the weekly wages provided by the Workmen's Compensation Act, 1906, allow the employer the full wages paid during the period the employe is totally incapacitated from work up to one month from the date of the accident, and thereafter the benefits allowed by the Act; and will reimburse the employer any reasonable medical expense he may incur in connection with such accident up to, but not exceeding, 5*l.* in amount.

The employer, by the acceptance of this policy, agrees to give notice to the company at its head or branch office, of any accident within a reasonable period of the time when it comes to his knowledge, and of any claim, either verbal or in writing, made upon him.

To render to the company, at the cost of the company, all reasonable assistance in connection with any accident or any claim which may arise under this policy, and, at the expiration of each year of insurance, to furnish a statement showing the total number of persons employed during the year, and to pay the company any additional premium due in respect of the persons so employed.

This policy shall be in force for twelve calendar months from the date hereof.

The President proposed a vote of thanks to Mr. Percival, which was seconded by Mr. Shacklady, who opined that it would be a serious matter to all employers of labour when the Act comes into operation [July 1, 1907]. The best remedy, in his opinion, is to insure. Mr. Barr supported the vote of thanks, which was put and carried by acclamation. The proceedings then terminated.

Leeds Chemists' Association.

A MEETING was held at the Grand Central Hotel on March 14, Mr. W. D. Pollitt (President) in the chair. An address was delivered by Mr. G. B. Suggitt, the Secretary of the Leeds Chamber of Trades, upon the aims and achievements of that body, and especially upon the action which the Chamber is taking for the protection of all classes of tradesmen against the new risks falling upon them under the

WORKMEN'S COMPENSATION ACT OF 1906.

He gave a lucid *résumé* of the provisions of the Act, pointing out that tradesmen will incur risk of greater or less degree in regard to every person employed by them who receives less than 250*l.* a year. The question of the standing and reliability of an insurance company to cover this risk is of the utmost importance, because the Act expressly provides that if the company fails to satisfy the injured person, the liability still remains upon the employer. He regarded the Act as altogether against the interests of tradesmen, and thought that any benefits which it will confer would go into the pockets of lawyers chiefly, insurance companies in the second place, and assistants in the third place. He pointed out, furthermore, that inasmuch as contributory negligence on the part of the assistant does not free the employer from liability, it would be necessary for tradesmen in the future to watch assistants with great care. The Leeds Chamber of Trades has concluded arrangements with an insurance company by which, if chemists join in a body, they will be accepted at a premium of 2*s.* per year per head for each assistant, or 4*s.* per 100*l.* wages, with 10 per cent. return to the insurers as rebate in recognition of the joint assurance.—A discussion followed, in which the President said it did not appear to him that the Act will inflict a very great hardship upon them, because they had really been running some of the risk all along, but had not been quite clearly conscious of it, inasmuch as it had never been defined.—Mr. Pilkington Sargeant said he had a boy who fell off a ladder, and in one way and another the accident cost him 10*l.* That was, of course, equal to the payment of premiums for a lifetime.—Mr. Mundell pointed out that the risk arising in relation to partial disablement for life is an entirely new one, and was a very serious risk indeed.—Mr. J. H. Beacock feared that assistants had got

the idea into their heads that it would be a very good thing to be slightly injured and get compensation.—Mr. Scott said they would have lawyers' clerks looking out keenly for cases of slight accident, and going to the persons concerned and suggesting to them that they should make a claim.—Mr. Suggitt was thanked for his address, and it was decided to consider the question of affiliation with the Chamber.

Manchester Pharmaceutical Association.

A MEETING was held at the Victoria Hotel, Manchester, on the evening of March 13, Mr. A. J. Pidd (Hon. Treasurer) presiding. Mr. Mercer, of Prestwich, was thanked for his presentation of a 1670 work on chemistry. The feature of the evening was a paper entitled

PRACTICAL POINTS FOR PHARMACISTS,

by Mr. A. L. Blain, Ph.C., auditor of the Association. In this the author dealt entirely with the commercial side of pharmacy, and his remarks were notable for their freedom from pessimism. We cull from the paper the striking "points" and the hints given by the author from his experience :

It is not possible for every qualified man to use his business day in exactly the same way. There are at least three well-defined classes of chemists' shops, each of which, properly conducted, should make a fair living for the proprietor.

1. The man in the working-class district should look upon his business day as being something different from a constant struggle from morning until evening. He should call himself what he is—a chemist and druggist—and make the most of his qualifications. He should not be afraid of spending a little capital in making his shop and his window bright and attractive.

He should look well to the penny sales, not worrying about giving a bigger packet than the drug-store or herbalist, but think how he may hand to his customer a reliable and useful article put up in a clean and neat method and properly labelled with instructions for its use.

He should take a personal interest in every man, woman, and child who comes into his shop, and should help them with advice. Mr. Blain had known a working man and all his friends and relations (in purchasing-power equalling a suburban chemist's lady customer) become constant customers at a certain shop because the proprietor usually gave kindly advice gratis when necessary.

2. Pharmacists in the suburbs of large towns and the principal establishments in smaller towns who twenty years ago refused to be affrighted at the coming of the grocer's drug-departments and companies' shops, are to-day becoming again appreciated by the better class of the public, who understand that goods bought at a low price are not worth more than the price paid for them. The result is that the true pharmacist is being applied to for drug and medical requisites by everyone who desires to purchase a really reliable article.

The tendency in the cheap establishments is to make quality a good deal lower and price slightly lower than the best.

A pharmacist makes a mistake in conducting his business on those lines. Customers who have used the cheaper articles, then get the better, soon discover that price of the latter is right. A good article retains customers. The "catchpenny" low-price proprietaries may draw the public to cheap establishments, but when they want to be sure of their physic they go to a good shop, because, as one customer said of such a pharmacy, "The prices are a bit high, but you can always rely on getting a good, genuine article, and you feel safe when you get anything from there."

Some pharmacists are more clever or more lucky than others in being able to offer many articles that "fill a want." In such cases the purchaser's idea of the value of the article is not based on its cost to make, but upon its utility to himself.

Another point is well worth consideration—namely, the idea the public have of the necessity for the existence of the pharmacist.

The known, admitted, and approved remedies principle is not made use of as fully as it might be. Pharmacists have not as yet put instructions on their labels for many pharmacopoeial preparations. If preparations so labelled were readily obtainable, he thought many purchasers would buy them in place of skilfully advertised stamped preparations.

When a pharmacist finds his business pleasantly increasing he should get a good assistant to help him. It might not visibly pay the first year, but it keeps together increasing custom, saves the master no end of little worries and time-wasters, and results in a considerably increased turnover for many years afterwards.

3. The man who has an "historio" or high-class City pharmacy was not dealt with. His is a prescription-business, so that he cannot push by bold advertisement his own medical

preparations, nor even such as are of known composition, without seeming to entice such patients to try self-medication. What a shocking thing it would be if a patient bringing a prescription to be dispensed should see glaringly advertised in the pharmacy a prescription that was just suited to his symptoms!

The discussion which followed was largely conversational, and there was general agreement with Mr. Blain as to the necessity for chemists making their shops bright and attractive. The Chairman led off the discussion with a vote of thanks to Mr. Blain, which Mr. Grier seconded. Mr. Kidd then spoke at considerable length in regard to points raised. About maintaining a good level in their dealings with the public, he said that if chemists were loyal to themselves there would not be much difficulty about that. Mr. D. Lewis did not agree with the suggestion that all B.P. articles should be labelled with full instructions, as that would only be a means of educating the public, who would afterwards buy from less qualified people. Mr. A. Burgess also spoke, as well as Messrs. Grier, Lane, and Franklin. The discussion then became purely conversational, and the Chairman brought it to a close by saying that there are three essentials in good trading : (1) All goods should be of the finest quality, (2) the shop should be clean, and (3) personal interest should be manifested in the business. In the last he included attendance at a local association. No retail chemist, in his experience, can afford to keep away from an association like the Manchester one. They should meet together, rub shoulders together, and they would find it a great interest, as well as conducive to their welfare. Mr. Blain having briefly replied, the meeting terminated.

Nottingham Pharmaceutical Association.

MR. W. A. H. NAYLOR, Ph.C., read a paper before the Association on March 20 on the subject of

THE ASSAY OF GALENICALS.

The paper contained critical notes on the U.S.P. fluid-extracts of belladonna, ipecacuanha, and nux vomica, and was divided into two parts. In Part 1 Mr. Naylor ably reviewed the chief characters of a pharmaceutical assay-process, accuracy and simplicity being the main features to be aimed at. He next referred to the difficulties that are met with in devising assay-processes owing to the variability of active ingredients in the sample to be analysed, or the behaviour of the substance to solvents. As a case of the latter an instance given was the formation of intractable emulsions which have made some processes unworkable. Frequently in assaying cinchona by the official method an emulsion forms that takes days to separate. Bird overcomes the emulsion difficulty in the case of liquid extract of belladonna by converting the alkaloid into a salt and extracting with a solvent in which the salt is insoluble but the interfering matters soluble. Another method is to precipitate the interfering substances with an acid such as is practised in the U.S.P. assay-process for fluid extract of ipecacuanha. The alcohol is removed by evaporation and the residue mixed with weak sulphuric acid, when, on filtration, the resins remain on the filter, the alkaloids passing through. The two methods may also be combined, as in Naylor and Bryant's process for standardising liquid extract of ipecacuanha. In yet another case the interfering bodies are left in the extract, but the solvents used are so chosen that no trouble is experienced. Alcock's plan of excluding water from the first stages of the official process for liquid extract of cinchona was also cited. Many of the constituents of galenical preparations have a modifying effect on the solubility of other ingredients, and a solvent which will readily extract certain bodies from comparatively pure solutions fails to act in the case of a liquid heavily charged with extractive matters. Resinous precipitates often carry with them active constituents, and retain them with great pertinacity. Such a precipitate needs to be very finely divided to ensure the complete removal of active constituents by washing.

Part 2 of the communication by Mr. Naylor and Mr. E. J. Chappel referred particularly to the U.S.P. alkaloidal assay-processes. In several instances the percentage of alkaloid is determined by titration of an unweighed residue. The method is open to the objections that the alkaloid is in a state for retaining ammonia, especially as the

residues are evaporated till quite dry, and not to constant weight. Where the alkaloid extracted is fairly pure the weight would be a useful check on the titration results, and when a fixed alkali was used for liberating the alkaloid in the last stage of the process drying would not lessen any error which may be caused by traces of alkali having passed into the immiscible solvent. The U.S.P. process for fluid-extract of belladonna was tested against the B.P. method. Little difficulty was experienced with the assay, and subsequent experience has shown that if carried out to the letter sharp separations will be obtained. The process has its faults; for instance, it needs more than one agitation with acid to extract the whole of the alkaloids from chloroform. The amount of water (10cc.) for rinsing out the separator and washing the filter might be increased. Bird's modification of the B.P. process or Alcock's process is more suited to the requirements of pharmacists than the U.S.P. method. Comparative figures were given from actual work in testing these processes. In regard to the fluid extract of ipecacuanha assay-process little difficulty was experienced; the alkaloidal residue was pale in colour and admitted of easy and accurate titration. The process has been found to give lower results than other standard methods. Experiments were made to find out where the loss takes place, and it was found that ether is not a satisfactory solvent for ipecacuanha alkaloids. It was easy to remove more alkaloid by chloroform. The acid used in extracting the alkaloids from the residue after dissipation of the alcohol is too strong, and the amount of wash-water is somewhat small. These criticisms were backed up by analytical data. Finally, in regard to fluid extract of nux vomica the authors find that satisfactory separation of the chloroform-ether and aqueous layers is not always satisfactory, definite volumes of chloroform and ether should be stated. The separation of brucine and strychnine was not always complete, and the authors made a study of Dewhurst's, Dowdard's, and Farr and Wright's modifications. The last-named is most convenient when time is short, but Dewhurst's method is convenient as other work can be carried on during the separation of the alkaloids. The following modification of the B.P. method was given as one that has worked well in the author's hands:

Put 5 c.c. of liquid extract of nux vomica into a separator, add 1 gram of potassium carbonate previously dissolved in 2 c.c. of water, and then 15 c.c. light petroleum (B.P. 50-70° C.). Agitate well, and run off the two lower layers into another separator, and repeat the agitation with 15 c.c. more of petroleum spirit. Transfer the aqueous layer to a clean separator, and add the petroleum ether to the portion previously obtained. Rinse the second separator with 5 c.c. of water, and add the washings to the alkaloidal liquid in the third separator. From this liquid extract the alkaloids by three agitations with 10 c.c. of chloroform, warming after each agitation. Take the B.P. quantities of dilute sulphuric acid and water, divide into three parts, and agitate each portion successively first with the petroleum ether and then with the bulked chloroforms, assisting the chloroformic separations by warming. Collect the united acid solutions, and separate the alkaloids by one of the above methods.

Even when assaying samples of extract which were very troublesome by the official method the above has proved a satisfactory alternative.

Worcester Chemists' Association.

A MEETING was held at the Star Hotel, Worcester, on the evening of March 14, Alderman Steward in the chair. Messrs. Haywood, Okell, Swanson, Hall, Lunn, Aubrey, Coverdale (Worcester), Baylis, Need, Lawton (Malvern), and Price (Kidderminster) were also present.

Mr. F. H. Alcock, F.I.C., F.C.S., of Birmingham, read a paper on

THE EXAMINATION OF GALENICALS.

This communication consisted of a series of homely remarks and suggestions as to testing galenicals which vary in quality, but for which there are no official tests. From the notes we cull the following observations:

DEC. ALOES Co.—Reference was made to the author's recorded observation that the cochineal in a sample of this had been deposited as a "lake." He now pointed out that the percentage of alcohol, alkalinity of ash, specific gravity, and total solids may be some guide as to its genuineness, but not as to the quality of the myrrh and aloes employed.

CONFECTION OF SENNA.—This is sent out of many consistencies. The microscope shows a remarkable difference in

samples, and may be a guide to authenticity. Ash, moisture, and dry solids do not help much.

CHLOROFORM-WATER and most of the medicated waters are variable in composition, and it should be stated that they are best freshly prepared.

COLLODIONS might have a quantitative test as far as residue is concerned. They are variable from imperfect storage. Corks are better than glass stoppers, if renewed when the natural moisture has gone from them.

CONFECTION OF SULPHUR.—If incinerated the alkalinity of the ash would not represent all the cream of tartar, for some of the sulphur would be oxidised, and sulphate result. The plan would be to remove the cream of tartar with hot water, filter, evaporate to dryness, then ignite and determine the alkalinity.

EMPLASTRUM PLUMBI is of variable composition, and it is desirable that the amount of lead as PbO should be fixed. The author has found undecomposed PbO in it, and even particles of metallic lead on rare occasions.

EXTRACTS OF GENTIAN, LIQUORICE, KRAMERIA, PAREIRA, RHUBARB, AND TARAXACUM should have a water-solubility test, as in the case of *fel bov. purif.*

OL. PHOSPHORATUM.—Three methods were suggested for determining the phosphorus, the most interesting method being based upon the use of solution of copper sulphate as an antidote for phosphorus-poisoning. It forms copper phosphide, which passes to relatively inert copper phosphate. The phosphate may be removed with dilute nitric acid and the precipitation conducted as before.

BLAUD'S PILL.—Determination of the amount of ferrous iron is no criterion of the correctness of the composition of the pill. It must be 20 per cent. of ferrous carbonate, and no process has as yet been devised.

PIL. RHEI Co.—The author hinted that he has found in commercial pills magnesia and its carbonate, *creta gallica*, and glycerin.

PIL. ALOES ET MYRRHÆ.—It is not desirable to use purchased powdered myrrh, which is somewhat different in composition from a good sample of fatty myrrh, which the operator should powder himself at the time of making the mass.

SYRUP OF GLUCOSE consists of "liquid glucose of commerce" and syrup 1 and 2 by weight; mix by the aid of gentle heat. Here no specific gravity to guide us, and no official description of the first ingredient. Can it, then, be wondered why the preparation varies so much, and that we do not get what we expect—viz., two samples alike in composition?

COMPOUND LIQUORICE-POWDER.—Sulphur is what the analyst goes for, although one of the least important constituents, but we get no mention of whether the senna was *ld.* or *10d.* a pound, nor whether the powdered liquorice came from Pontefract or Marseilles, or whether the fennel was British or Maltese. The microscope is of service here.

COMPOUND POWDER OF JALAP.—The amount of resin yielded to alcohol would be a useful test. So would the alkalinity of the ash derived from the cream of tartar.

COMPOUND RHUBARB-POWDER is sometimes the subject of legal proceedings. A little margin should be allowed in this, for it is found that magnesia is not always of full strength, owing to its avidity for water and CO₂. Variations may arise from a forgetfulness on the part of the seller to shake the stock-bottle before the buyer is supplied.

IRON SYRUPS.—No provision is made for the determination of the amount of ferrous iron present.

SYRUP. RHÆADOS.—One of two things often happens in this—(a) either the alcohol is right in amount and the sugar wrong, or (b) the sugar right in amount and the alcohol wrong. It is liable to fermentation, and requires some better preservative.

SYRUP OF SQUILL contains a variable amount of glucoside dependent upon the strength and age of the acetum scillæ and the mode of making the syrup. The proportion may rise to from a quarter to one-third of the whole.

SYRUP OF TOLU could be volumetrically standardised, using N/5 NaOH with phenolphthalein as an indicator. It is practically a solution of cinnamic acid and sugar.

AMMONIATED TINCTURES are often deficient in the ammonia, and it seems desirable that cognisance should be taken of these and a test with *modus operandi* inserted in the B.P.

Messrs. Need, Aubrey, Swanson, Okell, Lunn, and Coverdale discussed the paper, and Mr. Alcock was cordially thanked for it.

Western Chemists' Association.

A MEETING of this Association was held at the Norfolk Square Hotel, London Street, Paddington, on March 20, Mr. E. White (President) in the chair. Mr. J. H. Mather, of Godalming, submitted in an informal manner a few suggestions for the new B.P. The present B.P., Mr. Mather contended, smacks too much of the laboratory and too little of the shop, and as the great bulk of chemists throughout

the country are running their businesses either single-handed, or with only very little help, he would like to see things in the B.P. made easier for those who want to prepare their own galenicals. First of all he would like to see some plan adopted whereby the correct pronunciation of drug-names might be indicated in the Pharmacopœia. With regard to formulas for galenical preparations he thought the formulas should be worked out in ounces for the benefit of those, like himself, who are mathematically weak. He instanced as puzzles to the ordinary chemist the quantities for such things as unguentum conii, unguentum belladonnæ, and confection of sulphur, when only a small quantity of the preparation is to be made. In the formulas for making tinctures it would be much handier if so much 90 per cent. alcohol were stated and so much water, instead of different percentages of alcohol as at present. It would also be a distinct advantage if a series of liquors could be devised from which the syrups could be made, and the formulas given. He had an objection to the system which prevails of working everything out in percentages. Why should there be percentages in ointments, for instance? He had a feeling of affection for the old liquors, 4 grains to the ounce; 1 grain in 110 minims is much more complicated. He also objected to the introduction of synonyms in the Pharmacopœia. He did not see why it should be made the means of perpetuating popular names, many of which were distinctly misnomers. Tinctura benzoini composita of the present B.P. is not Friar's balsam, nor is pulvis rhei compositus Gregory's powder, or sulphur precipitatum milk of sulphur. These misnomers simply gave a handle to food-and-drug inspectors and analysts to harass the already well-worried chemist. Another thing he would like to see would be some description given with the tinctures as to what the finished products should be like. The same tinctures bought from different wholesale houses of equally high standing often differed very much in appearance. If compound liquorice-powder be made with granular sugar a much better result is obtained. He thought the question of standardisation was being run to death. The tendency to make the alkaloid the standard is a distinct mistake. There is much more in the real drug than one particular alkaloid. An interesting and animated discussion ensued in which the President, Dr. Harrison Martindale, Messrs. R. H. Parker, Burton Middleton, Brown, J. T. Barrett, and H. R. Procter (Hon. Secretary) took part.

Bournemouth Pharmaceutical Association.

A MEETING was held at the Gervis Hall on the evening of March 15, Mr. F. E. Bilson (President) in the chair. Messrs. Hardwick, Haynes, Hughes, Rose, Botham, Toone, Scampton, W. Jones, J. L. Robinson, Reid, Pars, and Bingham (Hon. Secretary) were also present. The President read a very interesting paper on "Aids to Dispensing," and showed a number of time-saving apparatus for the dispensing-counter, some of which was lent by Messrs. Maw, Toogood, and Warrick.—The question of insurance of assistants under the Workmen's Compensation Act was discussed. The Secretary was instructed to write to Messrs. Elliman, in answer to their letter in last week's *C. & D.*, to assure them of the cordial support of the Association in their endeavour to maintain a fixed minimum retail-price for their preparations and trusting they would continue their present scheme of protection.—A reprint of the "Bournemouth Formulary" has just been published, and copies (1s. each) may be obtained from the Hon. Secretary, Mr. W. A. Bingham, 58 Chaminster Road, Bournemouth.

Glasgow and West of Scotland Chemists' Association.

A MEETING was held at 94 West Regent Street, Glasgow, on Thursday evening, March 14, Mr. J. P. Gilmour (President) in the chair. Mr. W. L. Currie contributed some "Notes on the Preparation of

GRANULAR EFFERVESCENTS

on the Small Scale." Mr. Currie considered any retail chemist who is not able to dispense any prescription for an effervescent that he gets to dispense is not worth his salt. Eight years ago he began to make granular efferves-

cents upon a fairly large scale, having been incited to it by the demonstration given in Edinburgh by Messrs. Lunan and Davidson. His object now was to give an idea of how retail chemists might make small quantities of granules on the spur of the moment, so that any prescription coming in might be dispensed within half an hour. Mr. Currie proceeded to describe his apparatus. It is most suitable for quantities averaging from 8 oz. up to 2 lb. Many a night he has made 8 to 12 oz. each of six or seven granular preparations. During the eight years the apparatus had been in use it had paid for itself over and over again, producing the granules at a minimum cost of less than half what the wholesale houses charged for such special preparation. The number of drugs now exhibited in a granular form is so large that it is incumbent upon all chemists, Mr. Currie said, to send them out with the least possible delay. He thought that in the proposed new formulary of the Association something might be done towards giving a lead for forming effervescent granular preparations.

In the course of a short discussion on the paper, Mr. Lothian said he agreed with Mr. Currie that chemists could make granules themselves.—Mr. Mackay described Mr. Currie as "an effervescent pharmaceutical preparation of standard potency." (Laughter.) Within recent years, Mr. Mackay continued, retail chemists had taken up this matter of the preparation of granules, and one could get them made up in the form of 2 or 3 oz. with considerable advantage. He had seen in going around the town granules made on a dinner-plate with a dinner-fork. (Laughter.)—Mr. Lennox stated that he has been in the habit of making all the granules that he sends out.—The President strongly approved of the suggestion that retail chemists should make their own granular preparations. They must, he said, retain some part of the art of pharmacy.

Mr. J. Crombie, Ph.C., read a paper on

SOME DISPENSING DIFFICULTIES.

From the series of prescriptions which he commented upon we select the following:

Apomorphin. ... gr. j.
Heroin. hydrochlor. ... gr. j.
Terebin ... ʒij.
Bals. Peru ... ʒj.
Syrupi et mucilag. aa.
p. æ. ad ... ʒij.

pot. iod. gr. v. and aq. ʒj.,
the solution being added to
the syrups.

The trouble was that the terebene separated, taking with it the resin of the balsam. A good emulsion was finally obtained by triturating the balsam thoroughly with pulv. acaciæ ʒij., then the syrup and terebene added in small portions. When the terebene separated it was poured off, and a solution of the alkaloids in half an ounce of water added to the contents of the mortar, and well mixed; the terebene was then returned, and a good emulsion was formed.

Spt. ammon. arom. ... ʒss.
Potass. bromid. ... ʒij.
Glycerini ... ʒj.
Aq. chlorof. ad ... ʒij.

The mixed liquids do not retain the bromide in solution. The author dispensed the mixture with powdered bromide and a "shake" label, but he thought it would be better to reduce the glycerin to half an ounce so as to give place to more water.

Hydrarg. iod. rub. ... gr. ij.
Syr. ferri iod. ... ʒij.
Syr. acid. hydriod. ad ʒiv.

As the red iodide did not dissolve, it was treated with

Bellithion was ordered in prescription, and the doctor supplied, on request, the following formula for it:

Lithii salicyl. ... ʒiv.
Sodii hyposulph. ... ʒiv.
Sodii sulphat. ... ʒiv.
Potass. cit. ... ʒiv.
Potass. bicarb. ... ʒviij.

The hyposulphite was powdered and mixed with the other powders, then granulated on a water-bath.

Hyd. c. cretâ ... gr. v.
Sodii bicarb. ... gr. x.
Glycerini ... ʒj.
Aq. anethi ad ... ʒiss.

Contrary to expectation, there was no evidence of separation of mercury from the chalk.

Boroglycerid. ... 5 p.c.
Formaldehyd. ... 2 p.c.
Ol. pini pumil. ... ʒij.
Ol. eucalypti ... ʒij.
Benzoin. ... ʒij.
Myrrhæ ... ʒss.
Styracis præp. ... ʒss.
Spirit. (90 per cent.) ad ʒvj.

The resins were exhausted by percolation with the spirit, the oils added to the percolate, then the boroglyceride and formaldehyde, and a really nice preparation was obtained.

Mr. Crombie mentioned another eight minor difficulties, including the making of a plaster 18 in. by 7 in. The leather, he said, should be tacked down before the plaster is spread. A discussion followed, which was chiefly reminiscent and

complimentary. The President and Messrs. Sinclair, Moir, Hart, Irving, and Lothian took part.

In view of the approaching annual meeting of the Association, Messrs. Mackay and Craig were appointed to audit the Treasurer's books.

The President announced that a special meeting of the Association is to be held on March 28, when Mr. Rutherford Hill, Edinburgh, is to address the members.

Edinburgh Chemists', Assistants', and Apprentices' Association.

A MEETING was held at 36 York Place, Edinburgh, on the evening of March 15, Mr. Joseph Tait (President) in the chair. The evening was devoted to

NOTES AND QUERIES.

By Mr. William Duncan, Ph.C., F.C.S., which we subjoin :

No. 1.—What is the precipitate in the following mixture, and how can it be prevented?

Acid. hydrocyan. dil. ... ʒj.
Liq. bismuthi ... ʒvj.
Tinct. capsici ... ʒss.
Glycerin. pepsin. ad ... ʒiij.

The hydrochloric acid of the glycerin combines with the combined ammonia in liq. bismuthi and bismuth citrate is precipitated. Commercial liq. bismuthi is often unduly alkaline, and with such there is no precipitate, as the free ammonia neutralises the acid. With neutral liquor the addition of a trace of ammonia clears the mixture up at once.

No. 2.—This pill splits after finishing. Why?

Ferri carb. sacch. ... gr. iij.
Ferri arseniat. ... gr. ʒ.
Ext. gentian. ... gr. ʒ.

An acid in the extract sets free a little carbon dioxide from the saccharated carbonate.

No. 3.—Why does this ointment become black on keeping?

Bism. subnit. ... ʒij.
Acid. carbolic. ... gr. x.
Paraff. moll. ad ... ʒij.

It does not in absence of water and iron. Compounded by dissolving the phenol in the liquefied paraffin and adding the bismuth, the ointment showed no trace of discoloration at the end of a month.

No. 4.—The following stock headache-mixture is clear at first, but on standing a brown deposit forms. What is it, and how should the mixture be dispensed?

Potass. bromid. ... ʒij.
Tinct. gelsemin. ... ʒss.
Aq. camph. ad ... ʒiij.

The deposit most likely consists of resin and camphor salted out by the potassium bromide. It should be filtered. Replace the camphor with chloroform-water.

No. 5.—What excipient do you suggest for this pill?

Bismuth. subnit. ... gr. v.
Potass. biichromat. ... gr. ʒ.

Soft paraffin or paraffin ointment, firming with kaolin if required.

No. 6.—Why does tinct. ferri perchlor. lose its colour on keeping while the liquor

does not?—The tincture contains an oxidiser ferric chloride and a reducing-agent alcohol. Exposure to light induces or accelerates action between the two, the ferric iron becoming ferrous, the chlorine oxidising or combining with the alcohol.

No. 7.—How would you dispense the following?

Ammon. chlorid. ...
Pot. iodid. ... aa. ʒij.
Ammon. carb. ... ʒss.
Chloral. hyd. ... ʒiv.
Tinct. lobel. æth. ... ʒij.
Tinct. camph. eo. ... ʒj.
Ext. glycyrrh. liq. ...
Syr. simp. aa. e.p. ad ʒiv.

Ft. mist.

Calcii chlor. ... ʒij.
Ext. glycyrrh. liq. ... ʒj.
Aquam ad ... ʒiij.

Ft. mist.

As regards the first, chemical reaction between the chloral and ammonium carbonate cannot be prevented, but it may be hindered by dissolving the chloral in the syrup and combining with the other ingredients previously mixed in a mortar.

A possible mixture of the second may be obtained by adding 2 or 3 grains of tragacanth.

No. 8.—What should be done with the following?

Pot. iodid. ... ʒij.
Sodii nitritus ... gr. vj.
Acid. formic. (25 per cent.) ... ʒiij.
Aq. chloroform ad ʒvj.

Formic acid liberates nitrous acid from the sodium nitrite and hydriodic acid from the iodide. These two react, producing free iodine, which effects the oxidation of a portion of the formic acid. A hopeless incompatible. If it be impossible to consult the prescriber, neutralise the formic acid with a bicarbonate before combining with the other ingredient.

No. 9.—How would you dispense the following?

Phenazoni,
Quin. sulph.,
Sodii salicyl. ... aa. gr. 48
Aq. ad ... ʒvj.

By dissolving the phenazono and salicylate in 5 oz. of water in a measure, shaking up the quinine with the remainder of the water, and gently mixing. A little mucilage is an improvement, but not really necessary.

discussion, taken part in by Messrs. Forret, Hill, Plenderleith, and Rowland; and, on the motion of the Chairman, a cordial vote of thanks was accorded to Mr. Duncan.

North-East Lancashire Chemists' Association.

A MEETING was held at the Old Bull Hotel, Blackburn, on the evening of March 14, Mr. C. A. Critchley (President) in the chair. Among those present were the medical officer of health (Dr. Greenwood) and Drs. Scott-Heyleger, Stephenson, and McLeod, and Mr. J. M. Stirling, veterinary surgeon for the borough. The occasion was a lantern-lecture by Mr. Maben, F.C.S., of Messrs. Parke, Davis & Co., London, on "Bacteriology as Applied to Medicine." He described and illustrated the pathogenic micro-organisms which now furnish antitoxic serums, including those of

DIPHTHERIA

and tetanus. In connection with antidiphtheria serum, Mr. Maben referred to recent condemnatory statements by Dr. Walter Hadwen, of Gloucester, and remarked that there is one set of statistics that cannot be gainsaid—namely, the Registrar-General's returns. Dr. Hadwen had seized on one set of these figures and ignored the printed statement of the Registrar-General. According to Dr. Hadwen :

Taking the mortality returns for the ten years antecedent to the introduction of antitoxin (1885 to 1894), and comparing them with the ten years subsequent thereto (1895 to 1904), the former period showed a mortality from diphtheria of only 200 per million persons living, against 235 in the latter.

If this were the whole truth, it would be a very serious and damaging blow to their faith in the efficacy of antidiphtheria serum. But is it true? In reply he said :

It is well known to medical men that fifteen to twenty years ago thousands of cases of throat-disease were registered as croup which are now registered as diphtheria. Thus in 1885, 4,235 persons died of croup and 4,471 of diphtheria, in all 8,706. The continual spread of knowledge led medical men to regard cases of croup more and more as diphtheria, and so year by year the numbers registered under croup fell, until, for example, in 1892, 2,235 deaths from croup were registered and 6,552 from diphtheria, with a total of 8,787. Five years later, in 1897, the numbers fell to 1,099 and 7,654, with a total of 8,753, and in another five years 609 cases of croup and 7,802 of diphtheria; and in 1904, the last year for which statistics are available, the number of cases of croup dropped to 475, as compared with 4,235 twenty years before. Summing up the total number of cases of both croup and diphtheria, we find that during the ten years 1885 to 1894 the total number that died was 88,807, and during the next ten years the total number was 88,776. In making up true mortality returns, therefore, croup and diphtheria must be bracketed together. Indeed, the Registrar-General in his report specifically states this: "In order to ascertain approximately the mortality from diphtheria the deaths from croup and diphtheria are classed together." Taking these figures, how do the death-rates compare? According to the Registrar-General's returns the death-rate per million persons living during the first period was 310, while the death-rate was during the second only 278. According to the figures given, the population during the last period averaged almost exactly thirty-two millions, and if the death-rates from diphtheria and croup had continued at the same rate as during the first period the actual mortality would have been 9,200. Inasmuch, however, as that mortality was only 88,776, it was demonstrated as clearly as anything can be demonstrated by logical deduction that the antitoxin treatment of diphtheria had, in England and Wales alone, during these last ten years saved no fewer than 10,424 lives, or an average of over a thousand a year.

At the conclusion of a highly appreciated lecture the President proposed a vote of thanks to Mr. Maben, which Mr. R. Lord Gifford seconded. In supporting it, Dr. Greenwood stated that he was in a position to give the antidiphtheria serum free to all unable to pay for it.

Thames Valley Chemists' Association.

A MEETING was held at the Sun Hotel, Kingston-on-Thames, on March 20, Mr. W. J. Uglov Woolcock (President) in the chair. It was decided to get the minority of chemists in Twickenham and St. Margaret's to fall in with the ideas of the majority, and close at 9 p.m. in winter and 9.30 p.m. in summer.—Dinneford, Lincoln and Midland Drug Co.,

The reading of the paper was followed by an interesting

and Cockle's Pills are the only firms who have not acknowledged the Association's P.A.T.A. letter.

THE RELATION OF THE CHEMIST AND THE DOCTOR was the subject of a paper by Mr. A. Barnett, who said 80 per cent. of London doctors do their own dispensing or (in the majority of cases) delegate it to an unqualified individual. He knows doctors who supply anything, from a tooth-brush to a water-bed. For amendment of these conditions he suggested a trial working-scheme between chemists and doctors in the Thames Valley similar to that which has been successfully carried out at Margate, which Mr. Harvey afterwards explained has lasted twenty years.

SUCCESSFUL ADVERTISING was Mr. E. T. Nethercoat's theme. He insisted upon the importance of thorough, systematic, and persistent advertising. It is important to get at customers periodically by circulars, booklets, lists, cards, etc. A mere card sent at regular intervals does more good than a heap of literature sent at one time and not repeated; and a list of 100 articles regularly issued is likewise better than one five times its size sent, say, once a year with other matter. General agreement with the principle of persistence was expressed in discussion. Mr. Schollar said that in advertising, his dispensing-department postcards addressed to himself, with telephone-number, etc., proved valuable business-bringers.

RELATIONS BETWEEN THE OPTICIAN AND THE MEDICAL PROFESSION were discussed in a lucid paper by Mr. C. J. G. Bunker on the basis of distinguishing between eye-disease and visual trouble. He described various eye-troubles which the optician must be able to recognise, pointing out those which must be referred to the oculist and others which may be remedied by the use of glasses.

It was decided to hold the annual dinner in London on May 1, and to invite Mr. John Burns and the local M.P.s and Coroners.

Oldham Pharmaceutical Association.

At last week's meeting Mr. J. Lees, President, gave a suggestive address on "The Need for Specialising in Pharmacy," Mr. C. Granville Wood taking the chair on the occasion. The President's leading idea was that chemists should endeavour to adapt their special knowledge to the needs of their district. In Oldham, *e.g.*, he advised particular attention to the requirements of cotton- and iron-workers; the diseases of and foods for birds and quadrupeds, and cultivation of optical trade. A discussion followed.

A social meeting was held on Tuesday evening, March 19, when the members and friends took part in a whist-drive. The first prizes were won by Miss Gartside and Mr. F. Brelsford, and consolation prizes were awarded to Miss Wood and Mr. W. Gartside. Afterwards Mrs. C. Granville Wood, Mr. G. Todd, and Mr. J. E. Wood contributed music.

Sunderland Chemists' Association.

On Wednesday afternoon, March 13, a party of twenty visited the Hendon Gas-works, where Mr. Drury, the superintendent, conducted them over the works and described the process of gas-manufacture. In the evening a hot supper was served at the Grand Hotel.

North Kent Chemists' Association.

A MEETING was held at the Royal Mitre Hotel, Chatham, on Wednesday, March 20, Mr. A. Fred Corfe, Maidstone (President), in the chair. A pleasant and useful evening was spent in discussing business-matters.—Mr. H. Cook (Chatham) was appointed a delegate to represent the Association at the meeting of the Federation of Local Pharmaceutical Associations in May.—The date of the annual dinner was changed from April 17 to April 24.

Leicester and Leicestershire Chemists' Association.

THE annual meeting was held at Winn's Café, Leicester, on Tuesday, March 12, Mr. W. Rowe (President) in the chair. Messrs. Clarke, Crofts, Fry, Jack, Palmer, and Smith were elected members.—It was decided, on the motion of Mr. Marfitt, that there be one Vice-President only, who shall be the President-elect.—Mr. Marfitt then presented a satisfactory report as Hon. Secretary, and Mr. S. E. Cleaver

(Hon. Treasurer) submitted his report, which showed a useful balance in hand. These were adopted.—On the proposition of Mr. Rowe, seconded by Mr. Woolley, Mr. S. F. Burford, F.C.S., was elected President, and he took the chair. Mr. A. D. Hearnshaw was elected Vice-President, and Messrs. G. E. Marfitt and S. E. Cleaver were re-elected Hon. Secretary and Treasurer respectively, and Mr. C. J. Avery was appointed Assistant Hon. Secretary.—Messrs. Clear, Crockall, Hind, Thirlby, Ward, and Woolley were appointed members of committee.—The new President then addressed the meeting, dealing with the changes in the retail drug-trade during the past twenty years, and recommending the consideration of a town Pharmaceutical Formulary.—Mr. E. B. Ward gave notice to ask what action was to be taken in regard to closing on Thursdays during the summer.—Mr. W. Thirlby introduced a petition in favour of the Metric Systems Bill.

West Ham Chemists' Association.

THE annual meeting was held at Earham Hall, Forest Gate, on Thursday, March 14, Mr. Harold Mitchell (President) in the chair. There was a good attendance.

THE SECRETARY'S REPORT AND BALANCE-SHEET were submitted, the latter showing a balance in hand of 7*l.* 4*s.* 2*d.* Both were adopted.

ELECTION OF OFFICE-BEARERS.—Mr. W. R. Barnes was unanimously re-elected Secretary and Treasurer. A ballot was taken for President, which resulted in the election of Mr. J. H. Matthews. Messrs. Blades, Cleland, Evans, Johnson, Potter, and Soper were elected members of committee, and Messrs. Raine and Savage auditors.

MISCELLANEA.—Mr. Mitchell then vacated the chair, and Mr. Matthews took his place, thanking the members for the honour they had again done him. He suggested that the title of the Association should contain words embracing the districts of Stratford, Forest Gate, Bow, Bromley, Plaistow, East Ham, Barking, Manor Park, Ilford, Wanstead, Walthamstow, Leyton, and Woodford. Mr. Potter suggested the deletion of Bow and Bromley, as they are in the London district. Mr. Savage suggested that Canning Town and North Woolwich should be included in the list. After some discussion on the subject, Mr. Mitchell proposed that it be left for the committee to decide. This was seconded by Mr. Savage and carried.—Mr. Potter brought forward his report as delegate to the meeting on local organisation.—Mr. Barnes was thanked for his services as Secretary during the past year.—A few suggestions were made with regard to the syllabus for the ensuing year, and it was finally decided to leave it to the committee.—Mr. W. Forbes was elected an honorary member of the Association.—Mr. Mitchell was thanked for his services as President.—Mr. Savage suggested that one of the members should come forward as a candidate for the Board of Guardians.—This was all the business.

Bradford Chemists' Association.

A MEETING was held at the Royal Hotel on the evening of March 19, Mr. H. W. Gregory (President) in the chair, when Mr. Prosper H. Marsden, F.C.S., gave his lantern-lecture on his trip to Moscow. There was a large and attentive audience, and a cordial vote of thanks was passed to Mr. Marsden.

Chemists' Assistants' Association.

At the meeting held at 73 Newman Street, London, W., on March 15, fifteen members, including the President (Mr. Clark), in the chair, being present. Mr. R. E. Lownsbrough read his paper on "Plant Misfortunes," which was read before the Association in 1902, when, owing to fog, only a very few members had a unique opportunity of appreciating Mr. Lownsbrough's industry and powers of observation as a thorough nature-lover. For this comprehensive paper, covering the ravages of fungi (mildews, rusts, smuts, rots, ergots, etc.) and insects in the vegetable kingdom, in obedience to Nature's universal law of balance, he collected and mounted some hundreds of specimens, chiefly of leaves, attacked by different fungi or insects. There are about 4,000 species of fungi in Great Britain, and since the characteristic of this section of the vegetable kingdom is its inability to assimilate inorganic food, the important part they play in limiting the expansion of plant-

life is easily realised. The misfortunes plants suffer by insect ravages are even more numerous. Mr. Lownsbrough's paper detailed the *modus operandi* of a large number of the important members of the two classes of ravagers. Some discussion followed.

Oxford Chemists' Association.

THE annual meeting was held at the Golden Cross Hotel on Wednesday, March 13, Mr. C. Clayton (President) in the chair. The Secretary read the annual report and presented a statement of accounts showing an increased balance in hand over last year. The adoption of the report was proposed by Mr. Burbank, seconded by Mr. H. A. Goodall, and carried unanimously.—Officers for the ensuing year were then elected—viz., President, Mr. C. J. V. Bellamy; Vice-Presidents, Mr. Clayton and Mr. Goodall; Secretary, Mr. J. Dolbear; committee, Messrs. Burbank, Todd, Court, and Gunstone.—Mr. Goodall proposed a vote of thanks to the retiring President for his energy and zeal during his term of office. This was seconded by the Secretary and carried unanimously.

Birkenhead Chemists' Association.

A MEETING was held at the Claughton Music-hall, Birkenhead, on the evening of March 14, Mr. A. H. Ellithorne (President) in the chair, when Dr. Charles Symes delivered an interesting lecture on

OLD BIRKENHEAD.

After a brief account of the history of the town since 1810, Dr. Symes gave some reminiscences relating to the craft. He went to Birkenhead from Leamington in 1863, and decided to commence business in Oxton Road. Birkenhead was then a busy place, but had a much smaller population than now. Dr. Symes was surprised while fitting his shop to find that he was to have opposition from the start, Mr. Field having taken premises in the same road. After occupying this shop for several years, during which he had many disappointments and afterwards successes, he was able to buy a piece of land from the Commissioners in York Place. He then built the shop that was for some years afterwards in the hands of Mr. Ellithorne. He was rather proud of the fact that the removal to his new shop was done in one night, the last customer being served in the old shop at 8 p.m. and in the new at 9 a.m. next day. It was possible in those days to stand in the shop and see the harvesters gathering in the corn in Tranmere Vale, which is now covered with houses. At that time there was a stream running down the vale, called the Birken, from which the town takes its name. This was built over, and is now Borough Road. The chemists mentioned by Dr. Symes were Messrs. Mulloch, Field, Stewart, Ball, Lloyd, and Foulkes. They were all on friendly terms, but there was no association.

Mr. F. C. Cooling proposed a vote of thanks. Mr. C. H. Start seconded. The latter stated that Mr. Shaw, his uncle, was in business in Seacombe about the same period covered by Dr. Symes. Mr. Breeze, in supporting the motion, said that the business established by Mr. Field is still carried on in Oxton Road.

Cardiff Pharmaceutical Association.

A MEETING was held at the Angel Hotel, Cardiff, on March 20, Mr. R. Mumford (President) in the chair. A sum of 5*l.* 5*s.* was voted to the decennial festival of the Pharmaceutical Benevolent Fund.—The President referred to the coming pharmaceutical election, at which Mr. A. Hagon will come up for re-election.—Mr. Hagon gave an account of his stewardship during the three years he has held a seat on the Council, and promised that if the members honoured him by re-election nothing should be wanting on his part to advance the interests of pharmacy and to promote the general good of the craft.—Mr. W. R. Hopkins (Barry) proposed, and Mr. J. Reynolds (Vice-President) seconded, a motion to do all possible to further Mr. Hagon's candidature. Mr. Leo Joseph, Mr. A. J. Bellamy, and others having spoken, the motion was carried with acclamation.

YIELDING a percentage of 17 dwt. of platinum to the ton of ore, a fine body of ore has been discovered at a depth of 50 ft. on the Thompson River at Walhalla, writes the "Daily Mail" Melbourne correspondent.

Festivities.

Great Yarmouth Pharmaceutical Association.

THE annual dinner was held at 156 King Street on Thursday, March 14, at 7.30, most of the members being present. Between the clearing of the table and preparing for cards and social intercourse Mr. W. G. Poll entertained the company with his gramophone, and altogether an enjoyable evening was spent.

Hockey Club Concert.

A SUCCESSFUL CONCERT was given on March 15 in Wellington Hall, Belfast, in connection with Messrs. John Clarke & Co.'s Hockey Club. There was a good attendance, and the programme—a high-class one—included selections on the grand organ. The club is at the head of the Minor League.

Smoking-concert.

THE members of the Newcastle-on-Tyne and District Chemists' Association, with some friends, had their annual smoker at the Hotel Métropole, Clayton Street West, Newcastle-on-Tyne, on Wednesday, March 13. Mr. Gilderdale (President) was in the chair, and a lengthy programme was provided. Among the contributors were Messrs. Irons, Chantler, E. Tait, Nichol, Hobbs, McAllister, Leslie Bennett, Crier, Harry George, C. E. Layne, and Blyth. A collection for the Pharmaceutical Benevolent Fund realised 2*l.* 18*s.*

Halifax Chemists' Association.

THE members had a whist-drive, concert, supper, etc., at the Old Cock Hotel, Halifax, on the evening of March 14. The event proved a great success in every way, the members with their wives and friends having mustered well. Mr. W. E. Smithies (President) and Mrs. Smithies receiving them. Messrs. Dixon and H. Hebden brought with them a musical party. The programme opened with a whist-drive, there being twelve tables. The principal gentlemen's scores were: Mr. W. S. Thompson, 100; Mr. A. S. Hanson, 63. The ladies' principal scores were: Miss Haigh, 90; Miss B. Gledhill, 65. The party then sat down to supper, which was followed by a charming social, in which humorous songs were contributed by Mrs. Harrison, Messrs. C. Reynolds and A. Dobson; duets by Mrs. Harrison and Mrs. Dixon, and by Messrs. Hebden and Dixon and others. Towards the close the President briefly addressed the assembly, expressing his pleasure at meeting so many friends, and hoping that the gathering would be by no means the last of its kind during the coming year.

The Annual Supper

of the Bristol and District Pharmaceutical Association was held at the Royal Hotel on the evening of March 13, Mr. T. Grant (President) in the chair. A large number of guests supported him, including Mr. R. Mumford (President of the Cardiff Pharmaceutical Association) and Mr. A. C. Olds (President of the Bath Pharmaceutical Association), with whom were Messrs. W. J. Hallett, J. G. Hawes, F. S. Moore, W. K. Pryke, and L. Wilson from Bath; A. J. Bellamy, H. A. Gerhold, A. Hagon, J. A. Rees, W. R. Reynolds, W. H. Thomas, J. W. Jenkins, W. R. Williams, and T. Williams from Cardiff and Penarth. Mr. E. Widgery (Weston-super-Mare) was also present. The local members attending included Messrs. F. H. Blissett, H. E. Boorne (Hon. Treasurer), J. Chandler, R. Chandler, O. C. M. Davies, J. T. Good, E. W. Hill, F. B. Kirby, H. E. Matthews, J. Lennox, etc. After supper the loyal toast was duly honoured, but further speeches were dispensed with, and in their place a smoking-concert was held, the company being fortunate in that Mr. Trebilco had provided an excellent programme of music; it included songs by Messrs. N. Archard, T. Goodwin, G. Harris, J. Hodson, T. York, C. Goodman (Bristol's premier comedian), and Ley Harte, an extremely clever conjurer, mystified his audience with tricks and examples of thought-reading or second-sight, in which he was ably assisted by Mr. Trebilco. The Welsh visitors sang their National Anthem in their native tongue. "Auld Lang Syne" and a verse of the National Anthem brought to a close a most successful social gathering.

Pharmaceutical Society of Great Britain.

NORTH BRITISH BRANCH.

AN evening meeting of the members of the North British Branch was held on March 20 at 36 York Place, Edinburgh, Mr. D. B. Dott in the chair.

Before beginning the business of the evening the CHAIRMAN made reference to the death of Mr. J. R. Young, late of Messrs. J. F. Macfarlan & Co., manufacturing chemists, and it was agreed to send a letter of sympathy to his family.

PRECIPITATION IN INF. SENEGÆ.

Mr. A. CURRIE, Ph.C., read the first paper with the above title. It recorded that sterilised infusion of senega keeps for months, but if the infusion is inoculated with bacteria from a sample of infusion that has precipitated it goes bad very quickly. The author concluded that if precipitation is not directly due to bacteria it is on account of some secondary ferment produced by the bacteria.

Mr. BOA said he had not investigated the precipitating agent in infusion of senega, although he had understood it was due to the splitting up of the glucoside, and the action of bacteria was a new suggestion. All glucosidal bodies in liquid preparations were apt to cause precipitates which, he thought, might be attributed to a ferment. Alcoholic preparations of senega precipitated, and that could hardly be attributed to bacteria. He remarked on the length of time the infusion kept, and said he thought Mr. Currie had proved his case.

Mr. GLASS said he found no precipitation in a syrup of senega for which a weak alcoholic tincture was used with sugar added.

Mr. WHATMOUGH suggested that probably an enzyme had something to do with the precipitation. Some enzymes of the class of oxydases are very resistant to alcohol, as is seen in the gelatinisation of tincture of kino. He asked whether Mr. Currie had found boiling have any effect on the alkaloidal content of the infusion. He thought it was a point to be considered whether boiling was desirable or not.

Mr. MURRAY asked why the addition of alkali prevented a precipitate and also dissolved the precipitate when formed.

Mr. HILL was of opinion that it is proved that bacteria induced precipitation in the aqueous infusion. The fact that an infusion with 20 per cent. of alcohol added remained bright when sterilised, but precipitates when not sterilised, arrested his attention. That would lead one to think bacteria had something to do with it, but it was hardly to be expected in a liquid of that kind. It was possible that an enzyme of the oxydase class might be present which would be destroyed by sterilisation. They might, therefore, conclude that bacterial influence explained precipitation under some conditions, while in others the influence might be an enzyme or purely chemical.

Mr. CURRIE indicated that probably B.P. tincture of senega precipitated only slightly, but if freshly made tincture is tested with Fehling's solution there would be found only slight reduction of the copper, but after standing several weeks in sunshine the same tincture would cause much greater reduction of copper. That indicated that, though the tincture remained clear, the glucoside was split up and the sapogenin formed is retained in solution by the alcohol.

The CHAIRMAN, referring to a suggestion to add a little ammonia to the infusion, said it would keep longer and would not deposit. If the infusion was neutralised it soon became acid, and probably polygalic acid formed.

Mr. CURRIE said he had not given attention to action of light upon tincture of senega, but limited himself to precipitation in the infusion, and had shown that it was closely connected with bacterial action. Alkalies dissolved the precipitate, as is seen in cough-mixtures with carbonate of ammonia and infusion of senega. The ammonia combines with the sapogenin to form a clear solution. He had not investigated the effect of boiling on the glucosidal content, and had no great faith in any therapeutic value of senega.

Mr. BOA took the chair while Mr. DOTT read his paper entitled

A FURTHER NOTE ON OPIUM-ASSAY.

He said that when he contributed his recent note on this subject (*C. & D.*, January 26, p. 120) he had not the advantage of having before him the able paper of Messrs. Farr and Wright (*C. & D.*, February 16, p. 266). He wished now to bring out more distinctly some points which he had either not referred to or not previously emphasised. The B.P. processes for assaying opium and tincture of opium give as regards constancy of results all that can be expected. When moist lump opium is treated the results are not generally so constant as with the powder. This is due partly to the great difficulty in making a conglomerate mass quite uniform, especially when operating on small quantities like 14 grams. He believed there is also a tendency to the formation of minute lumps of extract coated with lime which prevents the filtered solution from representing the full strength. But even if the process is quite satisfactory as regards constancy, it might be wholly untrustworthy as giving an absolute statement of truth. Messrs. Farr and Wright admit that the variation in extract causes an appreciable deviation from the truth; and though he was not prepared with figures to prove it, he knew that the deviation is sometimes greater than can be accounted for by amount of extract. Adulterated opiums are sometimes supplied for the estimation of which the official process is quite unsuited, either because the lime mixture refuses to filter or because the ammonium-chloride precipitate contains much else besides morphine. Mr. Dott pointed out to confirm his own statement that 102 c.c. and not 104 c.c. of filtrate should be taken as the equivalent of 10 grams of opium in the official assay-process. The figure 102 was arrived at as the result of several experiments made some years ago, and he had quite recently obtained confirmatory evidence. High percentages of extractive would be obtained in the case of powdered opium standardised with milk sugar, but he had always used opium marc to standardise. Fortunately the B.P. prescribes a large excess of ammonium chloride, or the excess of lime dissolved by the sugar might lead to error. As regards the official method for the assay of tincture and liquid extract of opium, his recommendation that the volume should be made up to 92 instead of 95 c.c. was in agreement with Dowdard's results. There could be no meaning in using powdered opium standardised with milk sugar for the preparation of tincture. He did not agree with the suggestion to reduce the quantity of tincture employed for the estimation. The amount of precipitate actually obtained (less than 0.5 gram) is small enough for practical purposes. In regard to the allowance for loss in filtration and washing, experiments with pure morphine are not strictly comparable with opium-extract results. Unfortunately it is practically impossible to exhaust opium of its morphine without altering the composition of the extract. A satisfactory result cannot be obtained by exhausting one or two filtrates with amylic alcohol. The amylic alcohol removes other alkaloids besides morphine, and to make sure that all the morphine is extracted and none lost in purifying is impracticable when operating on a very small quantity. He suggested as a more satisfactory result to take 140 instead of 14 grams of opium, extract the filtrate by Mr. Tickle's method, and purify the morphine by washing with morphinated water and morphinated spirit. Proctor, and possibly others, had noted that the lime filtrate contains narcotine, but what is more important is that it contains a fair amount of thebaine; and care must be taken to have it completely removed before titrating with standard acid. He deprecated assaying opium by amylic-alcohol extraction as an unsatisfactory method. Regarding the drying of morphine hydrate and the temperature at which it loses the whole of its combined water, an air-bath may be used to render the precipitate quickly anhydrous. 105° C. is sufficient, but there is no objection to 110° C., as given in the B.P. As an indication of the purity of the precipitate and as a guide to the amount of acid probably required, it is just as accurate to work on the hydrate. He mentioned as an unpublished fact that the morphine by dehydration becomes more soluble in chloroform.

Mr. GUILD expressed agreement with Mr. Dott's views,

and Mr. WHATMOUGH thought Mr. Dott's correction should be made in the B.P.

Mr. HILL thought the trend of the recent discussions on the official assay-process was that it is based on the assumption that the opium to be examined must be of the quality which the B.P. had in view. Low grade or adulterated opiums might be worth the attention of manufacturing chemists, but in their examination some other process than the official one is necessary if a definite knowledge of the percentage of morphine to be obtained from them is desired. When moist opium is assayed by the official process the same result is not always obtained after drying and again assaying.

Mr. DOTT, in his reply, pointed out that Messrs. Farr and Wright did not indicate what kind of opium they used. If it was Indian opium, which contained a low percentage of opium, it would yield far too much extractive, and would be unsuitable for pharmaceutical purposes.

Mr. EDWARD J. GUILD then read a note on the

SOLUBILITY AND MELTING-POINT OF MORPHINE.

He said it is probably due to the presence of small traces of codeine not properly removed that the solubility of morphine has been greatly overstated by many observers. Mr. Guild described his treatment of a sample of morphine of fair purity whereby he obtained anhydrous morphine, and from the weight the amount of morphine, $C_{17}H_{19}NO_3 \cdot H_2O$, was calculated, and the results were expressed in parts of water required to dissolve one part of hydrated morphine. Mr. Guild gave the solubilities recorded, and said that, selecting four of his most satisfactory determinations, he found they varied from 1 in 5,110 to 1 in 5,310 at 20° C. Owing to the small residue of morphine to be weighed, it is difficult to obtain an absolutely precise figure, but the foregoing is sufficient to indicate that the mean—1 in 5,200 at 20° C.—is very near the actual solubility of hydrated morphine in water. Chastaing and Ladenburg are the most nearly correct of those hitherto recorded. Being curious to know if morphine is ionised at all in this dilute solution, he tried its electric conductivity, and was surprised to find that it appears to be an electrolyte, although a weak one, and has a conductivity much greater than water. This interesting point might be utilised as a means of indirectly determining the solubility according to the usual formula, and might bear further investigation. The melting-point may be said to be valueless as a criterion of purity of morphine, except perhaps as a negative test. Opinions differ here again as to the behaviour of morphine on heating. With morphine dried at 110° C. for three hours the author observed no evident change until the temperature reached 225° C. Two observers found that it gave brown vapours, indicating incipient decomposition between 225° C. and 228° C. At 235° C. it was distinctly brown, and between 245° C. and 250° C. it became apparently completely decomposed, fusing and subliming as a dark-brown tar on the sides of the capillary tube.

Mr. HILL referred to the value of having solubilities carefully investigated with pure material and under conditions which would exclude errors, and of having them placed on record. He commended Mr. Guild for his careful determination, and said he felt sure it would be accepted as final.

The CHAIRMAN expressed pleasure at seeing Mr. Guild contribute his first paper to the Society, and said he had no doubt it was accurate to a high degree. German chemists especially attached much importance to the melting-point, but many of the melting-points for alkaloids are wrong.

Mr. GUILD briefly replied.

The last paper was by Mr. J. RUTHERFORD HILL, Ph.C., on

THE IGNITING-POINT OF SULPHUR.

Mr. Hill referred to an experiment he described to the Society in 1890, which indicated 248° C. as the igniting-point of sulphur in air at ordinary atmospheric pressure. Dr. W. R. Hodgkinson, of Woolwich, in *THE CHEMIST AND DRUGGIST*, March 8, 1890, p. 334, criticised this figure, and remarked that anything below 300° C. "is quite out of the question." But in stating as his reason for this opinion that a thin stream of boiling sulphur (temperature 448° C.) can be poured through air into water without ignition taking place, Dr. Hodgkinson overlooked the fact that the liquid sulphur is poured through an envelope or tube of vapour

much colder on the outside than the boiling sulphur, and which effectually prevents the free access of air shown to be necessary for ignition. Mr. Bertram Blount ("Chemical News," vol. lxi., p. 153) repeated his (Mr. Hill's) experiment with a slightly modified apparatus, and found the igniting-point 261° C., which he accepted in place of his previous determination of 270° C. on the ground that his (Mr. Hill's) method eliminated the previous sources of error. Mr. Hill next referred to Moissan's determination of the igniting-point of sulphur in oxygen at ordinary atmospheric pressure, which he found to be 282° C., and in the air 365° C. This differed so widely from all previous determinations that it induced him to re-examine the subject. He had recently repeated his experiment of 1890, and obtained confirmation of the results. He had had some difficulty in following Moissan's process, but indicated sources of error which he thought made Moissan's method untrustworthy.

Mr. WHATMOUGH said a good deal would depend on the relative proportions of vapour and air. In ascertaining the flashpoint of petroleum, they got the first flash when the air and vapour are in a certain proportion, but a higher temperature is necessary to repeat the flash. The rate of the aspirator would also have an effect, because air cooled very quickly in a tube like that used in the apparatus.

Mr. GLASS and Mr. GUILD also spoke, and the CHAIRMAN pointed out that in these determinations with the statical electricity present minute fragments of the sulphur might be at a higher temperature and cause the ignition.

Mr. HILL, in his reply, admitted that something depended on the relative proportions of air and sulphur vapour; that was a point worthy of investigation. It had been suggested that the recent explosion in the French battleship *Jena* was caused by spontaneous ignition of the gunpowder.

Medical Gleanings.

Quinine Bihydrochlorate.

THE question of which quinine salt is the best for administration is incidentally dealt with in a communication on "Malaria Prophylaxis" to the London School of Tropical Medicine by Mr. B. Howard, M.D., B.Ch. Mr. Howard is a son of the chairman of Messrs. Howards & Sons, Ltd., and so is in an exceptional position for obtaining and testing the salts of quinine. He says:

One point which is often neglected merits discussion—viz., which salt of quinine it is best to use. Sulphate of quinine was the earliest preparation, and there is a tendency to continue to use it blindly. Its insolubility is a great disadvantage, and so many people have employed the bisulphide instead. The latter, however, has nothing to recommend it, except its solubility; on account of the high molecular weight of the two sulphate radicals, it has a very low percentage of quinine, while the amount of dilute sulphuric acid which is introduced into the stomach probably accounts for a good deal of the indigestion attributed to quinine. There are other salts that are far more suitable, especially the hydrobromate and the hydrochlorate. They are fairly readily soluble, contain a higher percentage of quinine, and are much less likely to disturb the digestion. The bihydrochlorate is the best salt of all; it has a fairly high percentage of quinine, and is soluble in its own weight of water, so that there is probably no risk of even a tablet passing through the body undissolved. Its only disadvantage is, that owing to its solubility, the taste is more noticeable than with other salts. All these three salts have been found very satisfactory in the experience of the writer.

Calcium Salts in Pneumonia.

SIR LAUDER BRUNTON, in the "British Medical Journal," March 16, recommends the use of calcium chloride in the treatment of the cardiac weakness associated with pneumonia. He gives 5 to 10 grains every four hours, sweetened with 1 minim elixir of saccharin. In heart-disease the lactophosphate or glycerophosphate may be used, but the chloride is more rapid in action. The treatment is based on Ringer's twenty-five-year-old observation that when a saline solution made with tap water is used for perfusing the frog heart, the heart retains its contractile power for a much longer time than when a distilled-water solution is used, and the difference is due to the lime salts in the tap water.

Recent Wills.

Probate has been granted in each of the following, the estates being sworn at the values stated :

MR. WILLIAM FULLEYLOVE, chemist, Netherton, 52*l.* 17*s.* 6*d.*
MR. SAMUEL BRANLEY, chemist and druggist, Southport, Lancs, 2,086*l.* 6*s.* 7*d.* gross.

MR. WILLIAM MURRAY DYKES, of the firm of Lorimer & Moyes, Glasgow, 5,226*l.* 18*s.* 4*d.*

MR. EDWARD THOMAS, homœopathic chemist, Chester, 2,170*l.* 5*s.* gross and 1,135*l.* 1*s.* 9*d.* net.

MR. CORNELIUS O'SULLIVAN, F.R.S., F.C.S., Burton-on-Trent, 69,252*l.* 3*s.* 10*d.* and 68,652*l.* 12*s.* 1*d.* net.

MR. EVAN WILLIAMS, chemist and druggist, Newcastle Emllyn, Camarthen, 4,932*l.* 4*s.* 6*d.* gross and 382*l.* 8*s.* 11*d.* net.

MR. GEORGE JOHN CUTCLIFFE, chemist and druggist, Dawlish, Devon, 3,056*l.* 17*s.* 6*d.* gross and 1,073*l.* 7*s.* 3*d.* net.

Business Changes.

Properly authenticated business notices (not being advertisements) are inserted in this section free of charge if promptly communicated to the Editor.

MESSRS. KNOLL & Co. have removed their London offices from St. Mary-at-Hill to 8 Harp Lane, E.C.

Boots, LTD., 123 High Road, Ilford, have acquired the additional premises next door (No. 125), which are now being refitted.

MR. A. W. RAYNER, chemist and druggist, has purchased the business of Mr. W. D. Ground, chemist and druggist, at Beccles.

MR. G. HELLENS, chemist and druggist, has purchased the business at 82 High Street, Totnes, formerly carried on by Mr. R. B. Morse, chemist and druggist.

MESSRS. AUG. LEVERMORE & Co., manufacturers of precipitated chalk, etc., have removed from 34 Lime Street to 8, 9, and 10 Great St. Helens, London, E.C.

MR. A. W. RYDER, chemist and druggist, has purchased the Guildhall Pharmacy, Rochester, formerly belonging to Mr. F. J. Muskett, pharmaceutical chemist.

MR. J. DAVIES, formerly manager for Boots, Ltd., at Taff Street, Pontypridd, is about to open a business of his own at Hannah Street, Porth, Rhondda Valley.

MR. F. H. BOWDEN, pharmaceutical chemist, has removed from 13 Spring Gardens, Buxton, and taken commodious premises at 38 High Street, Cheadle, Cheshire.

MR. A. C. DUKE, chemist and druggist, who has been managing the branch business of Pemberton & Malcolm at 138 High Street, Willesden Green, has now purchased it.

THE "Up-to-Date Pharmacy" is shortly to be opened at 12 The Broadway, Woodford, by Mr. R. Chrystall, chemist and druggist. It has been fitted throughout by Messrs. J. Sanger & Sons, 258 Euston Road, N.W.

MR. NATHANIEL N. ARMITAGE, pharmaceutical chemist, has sold his pharmacy at 82 Church Street, Hunslet, Leeds, to Mr. A. W. Kimber, chemist and druggist, of Doncaster. Mr. Armitage will now devote his entire energies and attention to the pharmacy at 114 Tong Road, Armley, which he took over last year immediately after his father's death.

THE AMIR OF AFGHANISTAN paid Messrs. Speechley & Co., chemists, a visit during his short stay of a few hours in Karachi and made extensive purchases.

A CHEAP German brand of perfumery is much in demand in Abyssinia, where there is a large and increasing sale for inferior qualities. About 3,000*l.* worth is annually sold in Abyssinia, and the prices at Adis Ababa range from 2*s.* per dozen to 2*s.* per bottle. Small bottles are preferred. Germany, France, and Austria-Hungary share the trade among them.

THE EARLIEST ACCOUNT OF THE JAPANESE GINSENG.—William Adams, the first Englishman to reach Japan (1600), wrote home to the East India Company (1613) that a root was grown in Japan "worth its weight in silver," but all that could be got was taken by the Emperor. It was held in Japan as "the most precious thing in physic in the world, and sufficient to put life into any man if he could but draw breath."

Trade Report.

NOTICE TO BUYERS.—The prices given in this section are those obtained by importers or manufacturers for bulk quantities or original packages. To these prices various charges have to be added, whereby values are in many instances greatly augmented before wholesale dealers stock the goods. Qualities of drugs and oils vary greatly, and higher prices are commanded by selected qualities even in bulk quantities. It would be unreasonable for retail buyers to expect to get small quantities at anything like the prices here quoted.

42 Cannon Street, London, E.C., March 21.

BUSINESS in drugs and chemicals is of about average volume this week, with several articles showing an active demand at rising prices. Norwegian cod-liver oil is a leader, and on good buying for home and export consumption, prices have advanced sharply. Opium has advanced a further 6*d.* in Smyrna as a result of a large American demand, which fact increases the prospects of morphine being also advanced. Lemon oil is again quoted higher from Messina, and citric acid is firmer also. Higher prices have been paid for English refined camphor, balsam Peru, aniseed oil, and saffron. Cardamoms are firmer, menthol is tending lower, and peppermint oil continues flat. Quinine is being depressed by "bears." Isinglass and chillies are cheaper. Shellac is firmer, and cloves, with a large speculative demand, have risen considerably. The following table shows the principal alterations of the week :

Higher	Firmer	Lower
Balsam Peru	Aniseed oil	Cantharides
Citric acid	Balsam tolu	Chillies
Cloves	Camphor (ref.)	Isinglass
Cod-liver oil	Castor oil	
Copper sulphate	Coconut oil	
Lemon oil	Pepper (white)	
Opium	Saffron	
	Shellac	

Cablegrams.

SMYRNA, March 19 :—The sales of opium amount to 300 cases, the market closing at advancing rates. Quotations range from 10*s.* to 10*s.* 8*d.* per lb. as to quality.

NEW YORK, March 21 :—Business is active. Opium has advanced a further 5*c.* per lb. to \$3.60 for druggists' by single cases. Cod-liver oil has advanced to \$32.00 per barrel for Norwegian. Copaiba is scarce at 75*c.* for pure. Dandelion is also scarce at 35*c.* per lb., and tolu is firmer at 21*c.* Refined camphor is strong at \$1.25 for tablets, and buchu is firm at 24*c.*

BERGEN, March 20, 7.55 p.m. :—The total catch of cod for the whole of Norway since the beginning of the season now amounts to 9,220,000, against 8,534,000 at the corresponding date of 1906. The yield of steam-refined oil is 8,534 barrels, against 17,242 barrels at the same time last year. The fishing has improved at West Lofoten and Senjen, and the outlook is more satisfactory. For prompt delivery the equivalent of 90*s.* per barrel, f.o.b., has been paid to-day.

Heavy Chemicals.

The general demand in the heavy-chemical market for both main and miscellaneous products continues good, and a very fair average trade for the time of the year is being done. Export trade is fairly brisk, and the demand on forward account in this branch is on the increase. Values continue to rule steady, without material or important fluctuations.

SULPHATE OF AMMONIA is on the whole steady, but nevertheless only quiet. Inquiries on forward account are heavy, but actual business concluded has not been of much importance, since sellers ideas of prices range from 2*s.* 6*d.* to 5*s.* per ton higher than for prompt. Present nearest figures are as follows: Beckton, 12*l.*; Beckton terms, 11*l.* 15*s.* to 11*l.* 16*s.* 3*d.*; London, 11*l.* 18*s.* 9*d.*; Leigh, 12*l.*; and Hull, 11*l.* 16*s.* 3*d.* to 11*l.* 17*s.* 6*d.*

TIN-PRODUCTS maintain a steady tone, although a shade lower than when last quoted. Supplies, however, are somewhat on the scarce side. Chloride of tin (crystals), 1s. 1d. to 1s. 1½d. per lb. Oxide of tin, specially light and purest quality, 200l. per ton, delivery subject to arrangement.

LEAD-PRODUCTS are firm at unaltered rates. White acetate of lead, 33l. 15s. per ton; brown acetate of lead, 27l. to 27l. 10s. per ton; and nitrate of lead, 34l. per ton, all less 2½ per cent. Glasgow.

ZINC-SALTS continue in fair consumptive request, and are steady. Zinc sulphate crystals 7l. 10s. to 8l. per ton, and zinc chloride, 100° Tw. solution, 7l. to 7l. 10s. per ton.

MAGNESIUM SALTS are without change in value, and meet with regular demand both on home and export account. Sulphate, 60s. to 62s. 6d. per ton; chloride, 65s. to 67s. 6d. per ton; and carbonate, 37s. 6d. to 40s. per cwt.

RECOVERED SULPHUR, with fair request and some scarcity, maintains a steady tone at 5l. 5s. to 5l. 10s. per ton in bags free on rails.

Continental Markets.

ACETYSALICYLIC ACID.—The makers have raised their prices to 425m. to 450m. per 100 kilos. Apparently they have come to some agreement as a result of the very low prices ruling.

AMMON. CARB.—The English manufacturers have raised the price by about 1m. per 100 kilos., and are competing with the German inland makers in spite of the import-duty of 5m. per 100 kilos.

ARSENIC.—The scarcity in this article in Germany continues. It is known that months ago later deliveries had been bargained for, so that the production of the mines has been booked for a long time forward. The situation now is that buyers are referred to second-hands, who ask 80m. per 100 kilos. for white powdered.

ASPHALTUM.—Prices in Hamburg have advanced to 48s. 6d. per cwt., c.i.f., for small pieces, and 31s. 6d. for splits.

BALSAM PERU.—From the continuously few offers from Peru and the absence of larger arrivals stocks are now at a minimum. The article has therefore become firmer again, and is quoted at 14m. to 14½m. per kilo. from first hands.

CHLOROFORM.—The makers have advanced their prices by about 5m. per 100 kilos. on account of the higher cost of raw material.

CITRIC ACID.—This article is so scarce for prompt delivery that 400m. per 100 kilos. has already been paid, and for the next few months larger parcels are scarcely to be had at the price.

CONDURANGO.—According to advices there remain about 350 bales at Hamburg out of earlier arrivals, and more recent arrivals have increased this stock by about 300 bales. The price of about 50m. per 100 kilos. is considered low.

FENUGREEK shows a gradual weakening in value. There are large stocks on hand which are quoted at about 40m. to 50m. per 100 kilos. in Thuringia. Good green sorts are scarce, and consequently command relatively higher prices.

OL. CAMPHOR.—For genuine white essential 95s. to 97s. 6d. per cwt., c.i.f., is quoted, according to quantity.

ORRIS.—The prices of all grades are again firmer. The extraordinary low quotations that ruled for years left the Italian agriculturists no profit, so that they reduced the area under cultivation considerably.

PLUMBI ACET. is still high in price, and may remain so for a long time, governed as it is by the high price of raw material. Crystals cost 67m. to 80m. per 100 kilos. in quantities.

QUILLAYA.—Recently whole bark has been handled at Hamburg at 43m. per 100 kilos., or an advance of about 3m. This is caused by the entire absence of offers from America or of any hopes of getting further quantities from there for some time. It is feared that the none too plentiful supplies will soon be exhausted, especially as already a strong spring demand is felt. Cut bark is quoted at a correspondingly higher price.

RHATANY.—The sale of the root is regular, and lately considerable arrivals have taken place, including 125 bales, which are priced at 50m. to 55m. per 100 kilos. for current quality. There are also large quantities of chumps available at about 25m. in Hamburg.

TARTARIC ACID.—Since citric has undergone a sharp advance, tartaric acid is awakening greater interest, and it is feared that prices will be raised in sympathy.

ACID, CITRIC.—English for prompt delivery is now unobtainable, and for April-May 2s. to 2s. 0½d. per lb. is quoted. Foreign has been sold up to 1s. 11½d.

ALOE.—The arrivals include 50 boxes of Curaçao and 11 cases of Zanzibar in skins. Good liver Curaçao is required for, and for Socotrine in kegs 95s. is wanted.

ANNATTO-SEED.—Small sales of fair Madras ex-auction have been made at 3½d.

ARROWROOT.—Steady, good manufacturing St. Vincent selling in auction at 2½d.

BALSAM PERU.—Sales have been made at 6s. 6d. per lb., but 7s. is now asked.

BALSAM TOLU is firmer in sympathy with the U.S.A. The price of small tins of good quality has been raised to 1s. 2d., and large tins to 1s.

BENZOIN.—Good qualities of Sumatra are now very scarce, but common is plentiful. Fine seconds are held at 9l., fine Palembang at 72s. 6d., and good at 42s. 6d. to 45s. A small sale of good glassy reddish Siam almonds in block has been made at about 17l.

BUCHU.—Sales of dull green and partly yellowish round have been made at 8½d.; stalky green are held at 10d., and good green at 10½d. per lb.

CAMPHOR.—The price of English refined has not been altered, but a fair business for export to the U.S.A. has been done at 1d. to 2d. above the official rates, including 1-oz. tablets at 4s. 11d. to 5s. per lb. The refiners are now said to be sold out for June delivery and part of July. German refiners are also busy, their quotations for bells being 4s. 9½d. per lb., c.i.f., London. For shipment, Japanese 1-oz. tablets are quoted 5s., c.i.f., and a few slabs might be had on the spot at 4s. 8½d.

CANTHARIDES.—Good Russian are obtainable at 3s. 1d. per lb. spot.

CARDAMOMS.—Holders are asking an advance of 1d. to 2d. per lb. on last sales rates, and for fair seed 2s. 2d. is wanted. The fact that there are no auctions until April 11 helps the market in second hands.

CASCARA SAGRADA.—There are several inquiries on the market for forward shipment, but buyers' ideas of value are pitched in too low a key. Subsequent to the auction a sale of 1902 bark was made at 40s. per cwt., but 42s. 6d. now seems to be the lowest, and 40s. for one year old. The majority of holders are decidedly of opinion that higher prices will ultimately prevail.

CHAMOMILES.—Prices on the spot are below the parity of those ruling in Belgium, fair white flowers being obtainable at 120s. to 125s. per cwt.

CHILLIES partly sold without reserve at 16s. to 16s. 6d. for dark Mombasa, and fair at 17s., being cheaper.

CINCHONA.—The extremely small supply of 350 packages was offered at auction on Tuesday, of which 192 packages sold at the unchanged unit of 1¼d. per lb. for the manufacturing-bark. This sale constitutes the smallest on record, as it represented about half a ton of quinine only. The total weight offered was 49,585 lb., of which 27,220 lb. were bought in, purchases on behalf of foreign druggists representing 12,625 lb. The agents for the Frankfurt and Stuttgart factories bought 6,380 lb., and the Imperial factory 3,360 lb. The interest chiefly centred in 147 bales of Bolivian cultivated Calisaya quill, which, being very scarce, met with keen competition at advanced prices. Good bright sound partly bold silvery quill sold at from 7½d. to 8¾d., and fair broken at 5½d. Of Ceylon cinchona 44 bales were offered, of which 22 bales of Ledgeriana original stem chips realised 3¾d. Ledgeriana root was bought in at 4d. Fifty bales of Java red stem chips were bought in at 3½d., and of East Indian 109 packages were catalogued, out of which 23 bales sold at 3½d. for Succirubra chips. Extra bold mossy silvery quill (Balmadies) were bought in at 7½d. per lb. The shipments from Java during the first half of March 1907 amounted to 305,000 Amsterdam lbs., against 281,000 Amst. lbs. at the same time of 1906. At the auction to be held at Amsterdam on March 26 the 8,189 bales and 169 cases weigh 758,252 kilos, and contain 43,646 kilos of quinine sulphate. The manufacturing-bark contains an average of 6.15 per cent. q.s., against 5.90 per cent. in the February auction. Of the above 8,358 packages, the pharmaceutical bark weighs 96,338 kilos and the manufacturing-bark 662,904 kilos., containing respectively 2,981 kilos, and 40,665 kilos. of quinine sulphate.

CLOVES.—At auction 23 bales of sea-damaged Zanzibar sold without reserve at 7¾d. per lb. Privately the market has continued active at daily advancing rates. Fair Zanzibar on the spot has been sold in quantity at from 7½d. to 8¾d. per lb., and for delivery several thousand bales have changed

hands at up to 8½d. to 8¾d. for March-April, 8¼d. to 8½d. for June-August, and 8½d. to 8¾d. for August-October; for arrival September-November shipment has been sold up to 6½d., and October-December at 6¼d., c.i.f. d/w.

COPPER SULPHATE.—An advance of 10s. per ton has taken place in the spot price to 33l. 5s. for Anchor and other brands. Liverpool is firm at last week's advance to 33l. 5s. to 33l. 7s. 6d. for March-April.

CUBEBS.—Genuine slightly stalky berries are worth from 50s. to 52s. 6d. per cwt.

CUTTLEFISH-BONE.—Good bold East Indian bone is quoted at 5½d., medium 3½d. to 4½d., good broken 2½d., and small broken 1½d. per lb.

DANDELION.—On account of a good export demand to the United States, the market has been practically cleared of English root, and it has only been possible to partially fill orders. Foreign is likewise scarce, only a limited quantity offering.

ERGOT is quiet and easy, Russian offering at 1s. 1d., c.i.f., or 1s. 1½d. to 1s. 2d. spot., with old Spanish at 1s. 3d. to 1s. 4d. spot and 1s. 5d. c.i.f.

GALLS.—Plum-shaped Chinese have been sold at 54s., c.i.f., for near at hand; for present shipment plum-shaped are quoted 55s. and ordinary 52s., c.i.f.

GAMBIER.—Small sales of good cubes have been made at 30s. 6d. to 31s. per cwt.

GAMBOGE.—Firm; small sales of fair Siam pipe have been made at 16l. 10s., the price for good being 17l.; an arrival of 15 cases has taken place.

GINGER.—No Jamaica was put up at auction, and the light offerings of new-crop Cochinchina and Calicut were all bought in at firm prices, including bold cut Cochinchina in cases at 95s., unsorted native cut at 60s., washed rough in bags at 38s., and brown rough Calicut at 38s. Privately the business includes 10 tons Japanese to arrive at 29s., c.i.f., and in Liverpool 30s. per cwt., ex quay, has been paid for new crop.

GLYCERIN.—The following is now the scale of prices quoted by British refiners for double-distilled (B.P.), s.g. 1.260:

	Under 1 cwt.	1 cwt. and under 2½ cwt.	2½ cwt. and under 5 cwt.	5 cwt. and under 10 cwt.	10 cwt. and under 20 cwt.	1 ton and under 5 tons
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
10-cwt. Drums...	—	—	—	—	51 6	51 0
5-cwt. " ...	—	—	—	52 6	52 0	51 6
2½-cwt. " ...	—	—	54 0	53 0	52 6	52 0
1-cwt. " ...	—	55 6	55 0	54 0	53 6	53 0
56-lb. tins in cases ...	58 6	57 6	57 0	56 0	55 6	55 0
28-lb. tins in cases ...	60 0	59 0	58 6	57 6	57 0	56 6
W. Qts., not less than 1 doz. ...	—	—	7d. lb.	—	—	—
W. Qts., less than 1 doz. ...	—	—	7½d. lb.	—	—	—

GUM ARABIC.—Soudan gums are unaltered, fair half-hard sorts being quoted at 27s. 6d. to 30s. spot, good to fine pale sort being obtainable at 35s. to 45s. per cwt. East Indian gums are also unchanged, the sales including Ghatti at 35s., c.i.f.

IPCACUANHA.—Subsequent to the auctions there was a fair demand. Matto Grosso is quoted at 8s. 2d. per lb. upwards, Cartagena at 5s. 11d. to 6s., and Minas at 7s. 6d. to 7s. 9d., according to quality; both Cartagena and Minas have been sold freely. An arrival of seven bales Cartagena has taken place.

ISINGLASS.—At auction practically a thousand packages were offered, of which a small proportion sold at lower prices all round.

JALAP is offered from Hamburg at from 5d. to 5½d. per lb., c.i.f., according to quantity. High-test for manufacturing purposes is entirely absent, and the small lots arriving from time to time are promptly bought at high prices.

LITHIA SALTS.—The cheap lots in second-hands are gradually being worked off owing to a better demand, and there is less pressure to sell. The carbonate is quoted from the makers at 6s. 4d. for large quantities, but second-hand can be had at 5s. 6d. to 5s. 9d., while citrate crystals is 3s. 6d. to 4s. per lb.

LYCOPodium is offered at 2s. 1d. per lb., c.i.f., in cases, for thrice-sifted.

MENTHOL is quiet, with buyers of Kobayashi near at hand at 8s., but no sellers; spot is nominally 8s. 3d., and outside brands 8s. 1½d. Moderate arrivals have taken place this week.

MYRRH.—Good picked gum is obtainable at 7l., and fair Aden sorts at 90s.

OIL, ANISEED, is firmer, with sales on the spot at 5s. 4d., and for arrival 5s. 3½d., c.i.f., is quoted.

OIL, CAJUPUT.—Sales of the "Horse" brand have been made at 3s. 3d. per bottle.

OIL, CASSIA, is very firm, with small spot sales at 5s. 7d. for 75 per cent. to 80 per cent., and 6s. for 80 to 85 per cent.; for arrival, 70 to 75 per cent. is quoted 5s. 2d., 75 to 80 per cent. 5s. 4½d., and 80 to 85 per cent. 5s. 7d. per lb., c.i.f.

OIL, CASTOR, is firmer. Hull make of first pressing for prompt delivery is quoted 32l., April 32l. 10s., May 32l., June 31l. 10s., July to December 30l. per ton in barrels, ex wharf London. Seconds 1l. per ton less.

OIL, COD-LIVER.—To the surprise of everybody, this article has taken a sudden and rapid advance, the quotations from Norway showing a rise of over 20s. per barrel since our last report. This movement appears to be based on an active demand, principally from the home trade and the United States, the latter being buyers here, as London is cheaper than Norway. As is usual on an excited and rising market, quotations have varied considerably, and are mostly "without engagement." Business in the new oil has been done at from 85s. to 95s. per barrel, c.i.f., and at the higher price a line of 100 barrels has been refused. On Wednesday 97s. 6d. to 100s. was asked by several agents for prompt shipment, and to-day 105s. is asked, which price restricts business. Fairly large sales have also been made from second-hand holders, who have taken advantage of the present excitement to clear, the business including (prior to the rise) good 1906 oil at 78s. per barrel, and since at 88s. to 90s. spot. Wholesale druggists advanced their price to-day by a further 6d. per gallon.

The following circular (March 19), which has been sent out by a London firm of agents, is a little out of date as regards prices, but it is interesting as indicating the present situation:

"Reports from the fishing-places have somewhat improved, and under ordinary circumstances a declining tendency would probably have resulted. In 1905 the production of steam-refined oil was even smaller than now, and yet the total output at the end of the season was very considerable—viz., 42,000 hectolitres. Consequently there is still a good chance of prospects again improving. The market is, however, very sensitive, possibly owing to forward sales which have been made at the beginning of the season, and which refiners are trying to cover, and, with a demand from several quarters having sprung up, quotations have suddenly been raised considerably. Sales have been made as high as 95s. per barrel, c.i.f., for early shipment. We at present quote unbinding for prompt shipment 97s. 6d. per barrel net, c.i.f. London, and other ports at corresponding prices. We have no offers for forward shipment, but would submit bids at a similar figure."

Writing on March 18, our Bergen correspondent states: "Last week the cod-fishing was favoured by passably calm weather. It is therefore the more regrettable that the fishing still remains far from satisfactory. At Lofoten the fishing is concentrated at the same few places where it has been for the last two years. In the East of Lofoten very few boats are stationed. The reports from other districts are also unsatisfactory. The total output up to date amounts to—

	1907	1906	1905
Cods (millions) ...	9.2	19.8	11.4
Cod-liver oil (barrels) ...	8,534	17,242	8,055
Livers for raw oils (hect.) ...	4,801	5,853	2,869

The prospect for the Lofoten fishing are for the moment far from being bright. However, the situation may soon change, and there is still the Finmarken fishing in reserve. Market is very firm for prompt delivery, and to-day a price equal to 87s. per barrel, f.o.b. Bergen, for new non-congealing is obtainable (see cablegram for latest price). The exports from

Bergen up to date amount to 1,677 barrels, against 2,799 barrels at the same date of last year."

OIL, LEMON, is again cabled higher from Messina, but quotations vary considerably. Business has been done in one quarter at 6s., c.i.f., others ask 6s. 6d. to 7s. 3d. (without engagement), and there is even a quotation of 8s., c.i.f. It is said that this fresh advance is the result of "bears" trying to cover their sales made earlier in the season.

OIL, OLIVE.—As a rule Spain produces from 200,000 to 300,000 tuns of olive oil per annum; but this year, owing to drought, only half an average crop is anticipated. Spain being herself a large consumer of olive oil, will therefore be compelled to import from the Levant and Italy. This in turn reflects on the already high prices at which olive oil now rules; moreover, the quality of good oil has suffered.

OIL, PEPPERMINT, is in slightly improved demand at the decline. Wayne County is offered at 9s. and H.G.H. at 12s. 6d. to 12s. 9d. London terms.

OILS, FIXED.—Coconut oil is firmer at 43s. for Ceylon and 47s. per cwt. for Cochin. Linseed is lower at 22s. 9d. in pipes and 23s. in barrels on the spot. Rape is firm at 31s. spot for crude and 32s. 9d. for refined. Cottonseed is firmer at 25s. 4½d. for crude and 26s. 6d. to 28s. for refined on the spot. Lagos Palm oil is steady at 35s. 6d. per cwt. Turpentine is dearer at 52s. 3d. for American, and Petroleum is unaltered at 6¼d. to 6½d. for Russian, 6¾d. to 6½d. for American, and 7¾d. to 7½d. for water white.

OLIBANUM is unaltered, fair palish drop selling at steady prices, the value of such being 45s. per cwt. Sales of garblings have been made at 16s. 3d. and siftings at from 12s. to 14s. per cwt.

OPIMUM.—In consequence of the sixpenny advance in Smyrna and the sale of 300 cases to the United States, the London market has risen in sympathy, and as usual on a rising market, holders are not keen sellers, and, in some instances have withdrawn. Smyrna druggists' is now worth from 11s. 3d. to 11s. 6d. per lb., and a fair quantity has changed hands, and for Malatia 11s. has been refused. Persian has been active on both speculation and export account at from 11s. 9d. to 12s. 6d. for good testing gum.

SMYRNA, March 9.—The market is active on American and English account. Prices paid have been on the same level as those of last week, in spite of the fact that the news concerning the crop has not been reassuring. The sales amount to 107 cases, as follows: Twenty cases Karahissar t.q. at the equivalent of from 9s. 9d. to 9s. 10d.; 80 cases choice Karahissar t.q. at from 10s. 1d. to 10s. 2d.; three cases Yerli t.q. at from 10s. 4d. to 10s. 7d.; and four cases choice Yerli t.q. at 11s. 1d. per lb., c.i.f. European ports. Market closes very firm, with buyers. The arrivals amount to 3,176 cases, against 1,450 cases at the same date of last year.

PEPPER.—At auction 80 bags grey Singapore sold at 4¾d. Privately fair Singapore is selling on the spot at 5d. per lb., being ¼d. better than last week, and for arrival March-May shipment has been sold at 4¾d. to 4¾d., c.i.f. d/w. No White sold at auction. Privately there has been a better demand at improved prices, sales including Singapore at 7d., and April-June shipment at 6¾d. to 6¾d., and May-July at 6¾d., c.i.f. d/w. Sales of fair Long have been made at 80s. per cwt.

PIMENTO of fair quality is quoted at 2¾d.

POTASHES remain very dear, first American offering at 36s. per cwt., no Montreal being obtainable.

QUININE.—There is every reason to believe that the secondhand market is being depressed in certain quarters in the interests of a large "bear" account, which is open. It may also be pointed out that the secondhand price is nominally 1¾d. per oz. below that of makers—a price out of all proportion, as on the basis of the present bark unit manufactured quinine is cheaper than raw material. It is also stated that makers are taking advantage of this anomalous condition of the market by quietly picking up all the cheap lots on offer. There are, however, few secondhand sellers at present prices, and should the Java shipments of bark for March be small (as the first half of the month proved to be), a healthier feeling will probably prevail when "bears" show anxiety to cover. At the moment the spot price of good German brands of sulphate is 8¼d. nominally.

The fifteenth public sale of the Amsterdam Quinine-works will be held at Amsterdam on Thursday, March 28, when 1,417,500 kilos B.P. quinine sulphate (50,000 oz.) and 400 kilos quinine sulphate, according to various Pharmacopoeias, will be offered.

SAFFRON is very firm, and prices during the past fortnight or so have advanced about 3s. per lb. to 32s. net for finest B.P.

SARSAPARILLA.—The arrivals include 8 bales of grey Jamaica, 16 of Lima-Jamaica, and six of Native-Jamaica. Honduras is scarce on the spot with sellers at 2s. 3d., grey Jamaica is obtainable at 3s. 9d. to 4s., and Lima-Jamaica at 3s. 6d. per lb.

SHELLAC is firmer on the spot, fair TN Orange selling on a basis of 213s. to 214s. Fine marks are quoted 240s. to 255s. spot, and 230s. to 240s. c.i.f. AC Garnet has been sold at 197s. 6d. to 200s. Futures are dearer.

STRYCHNINE.—There has been an active export demand recently, principally for Australasia, and prices are firm in view of the higher rates wanted for nux vomica.

SULPHUR.—Messina prices are unchanged. The impending elections to the definite board of managers to the "Consorzio" absorb all attention. Other questions are left in abeyance, as the provincial board now in office has no power to act on vital questions. The most important question is how to dispose of the large stock inherited from the A. S. Co., but no decision is expected before May or June, and a decline in prices seems excluded for the present. The intended measures for the restriction of the output can only be taken after the election of the definite board of directors.

TAMARINDS.—Good Calcutta now landing is offered at 13s. 6d., and for Barbados, which are scarce, 21s. to 22s. is asked.

TURMERIC.—Small sales of Madras finger have been made at from 25s. to 28s. per cwt., according to quality. Bengal is quoted 20s. to 21s. spot. Split Cochin bulbs have been sold at 11s. spot.

Cardamoms and Camphor.

The annual report of the Planters' Association of Ceylon for 1906 states that the cardamom-crop harvested during the first six months was fully up to expectations, but the unusually wet August and the continuous wet weather from October to the end of the year prevented fructification and retarded the curing of the fruit to such an extent that the bulk of the small crop gathered during the latter half of the year is still in many of the Estates' stores. The demand for dried green fruit for India enabled local sellers to find a market for their produce without the trouble and cost of bleaching as required by London and Continental buyers. The quantity despatched during the first ten months of the year was only 27,170 lb. less than the preceding year, and the higher prices then ruling proved that stocks were lower and the demand for the spice generally increasing. The cess of 1c. per lb. on all cardamoms despatched from Colombo now amounts to Rs. 10,000. The "Thirty Committee" have the matter under consideration as to how the funds should be appropriated for the benefit of the industry, and now that the amount available is sufficiently large to go on with, the committee again invite suggestions from those interested as to how to create and increase the demand for this produce. The present estimate for 1907 crop is 700,000 lb. Of the estimate of 800,000 lb. for 1906, 732,136 lb. were shipped. Owing to the high price of camphor more attention has been given to this product. Large quantities of seed have been imported from Japan and Formosa, but the results have been most disappointing, as the percentage of plants to seeds sown has been nominal. Attempts are being made to strike plants from cuttings, but it is as yet too early to say with what success. With the present price of camphor the cultivation of camphor-trees should prove remunerative; but it is a product for which the demand is limited, and any large acreage planted would lead to over-supply in the future, but as a byproduct should prove of value. It is not yet known what elevation is most suitable, though it grows well from sea-level to 6,000 ft., but whether the percentage of camphor will be the same at all elevations remains to be proved.

MR. JAMES ELLIMAN on Thursday handed to the Urban District Council of Slough the trust deeds of a recreation ground over 26 acres in extent. With the buildings and an endowment of 10,000l. the value of the gift is over 51,000l.

ANOTHER "ADVANTAGE."—The adherence of Great Britain to its own system of weights and measures has been characterised by a witty Italian as "a relic of the stone age." But is every pharmacist aware of the astounding fact not only that metric weights and measures are practically equivalent terms, but that even the coinage has its weight-value? Among some pharmacists the one-centime piece is in common use for a 1-gram weight.



TO CORRESPONDENTS.—Please write clearly and concisely on one side of the paper only. All communications should be accompanied by the names and addresses of the writers. Publication of letters does not imply our agreement with the arguments or approval of the statements therein. If queries are submitted, each should be written on a separate piece of paper. We do not reply to queries by post, and can only answer on subjects presumably of interest to our readers generally. Letters received after the early posts on Wednesday cannot as a rule be dealt with in the current week's issue.

BUSINESS INFORMATION.—We have very full records of the makers or agents for articles and products connected with the chemical and drug trades, and supply information respecting them by post to inquirers. Inquiries regarding any articles which cannot be traced in this manner are inserted under "Information Wanted."

Pepsin-testing.

SIR,—Kindly allow me to correct two slight errors in my letter in your issue of March 16. The figures "0.147" should read "0.14 per cent.," while (two lines below) "experiment" should be "experiments."

Yours faithfully,

Newport, Mon., March 18. ARNOLD R. TANKARD.

Is Protection Worth While?

SIR,—Messrs. Elliman ask proof that it is worth their while to maintain protection. As a "P.A.T.A." member for many years, I know for a positive fact that protected articles are generally willingly sold, even in some cases actually recommended, by chemists, who are urged by the "Anti-Cutting Record" to give preference and prominence to "P.A.T.A." goods. Although Messrs. Elliman have not placed their goods upon that list, they have been accorded the same treatment on account of the non-existence of cutting in retail price of their goods. If Messrs. Elliman are tired of their own method of protection, let them join the "P.A.T.A." It is equally effective, if not more so. Probably many chemists do put up an embrocation similar to theirs, but as a rule it wants a lot of pushing, and for a busy man I ask, "Is substitution worth while?" so long as you are getting a reasonable profit without wasting time in the attempt to sell your own. For my own part, although I have a good formula for a similar non-separable embrocation and also plenty of labels, I have for many years ceased to put it up, and always hand "Elliman's" over without comment. I am sure I am not alone in this respect. Directly protection is withdrawn I shall again put up and push my own, whatever Messrs. Elliman may think. The day they withdraw will be a bad one for them so far as their sales are concerned. I hope they will think better of it.

Yours truly,

Maida Vale, W.

W. G. BURGE.

SIR,—As an ordinary chemist (unlike many tradesmen whose turnover is so very much larger) is unable to make his business pay on the profits afforded by the sale (even though protected) of proprietaries, manufacturers ought not to be in the least degree surprised if he who, as they very well know, can produce and sell an article equal in every respect to theirs, does so in justice to himself and his creditors. Everybody in the trade knows that we can supply an equal article (stamp and all) for 6s. per dozen where we have to pay 10s. for Elliman's, and, say, a bile-pill for about 3½d. a box which costs us 12s. 3d. per dozen. Why, then, should we not create a personal trade (particularly unless it is made worth our while to do otherwise)?—as if people want "Jones's White Oils" they will go to Jones for them, whereas they can get "Elliman's" from anybody. In my own business (which is essentially a personal one) I unhesitatingly supply Elliman's when it is asked for because it is protected, and I would very much like to do this with every individual sale I make; but if this article is going to be protected no longer and sold by the stores for what it costs, I shall not hesitate both to keep it well behind and sell as little as possible (legitimately). If wholesalers

would confine their business to the members of our craft, charge 7s. 6d. per dozen for their 1s. articles, and protect them at this price, we would then even take the trouble to recommend their goods, and should sell three where now we sell one. It would pay them, as their sales would be doubled, probably trebled. I like to do business in a fair straightforward way, and am, like many others I know in the trade, opposed to "substitution." At the same time, I am not in business with the sole idea of wearing out my old clothes.

Goring Pharmacy.

Yours truly,

W. F. MOSLEY.

SIR,—I am sorry Messrs. Elliman & Sons, like the rest of us, "feel the pinch" of the present competition, but, before they ask the retailer to prove whether "protection is worth while," they should in common fairness ask themselves:

1. Are we giving the retailer a living profit on our specialities?
2. Are we expecting too great an interest in the distribution of our preparations for the amount of commission allowed?

I take up the price-list of a well-known patent-medicine house and find the price for the 1s. 1½d. size embrocation is 10s. 6d. per dozen net, carriage forward. Now, by the time I have sold 20s. worth I have waited upon twenty customers, probably booked half of them, and find I have a gross profit of 2s. 6d. On going into my books I find it impossible to carry on my business at less than 15 per cent. working-expenses, exclusive of my own time and personal attention, therefore 2½ per cent. of the expenses entailed in the retailing of Messrs. Elliman's preparations has to be paid out of the profits on some other sales. All preparations of this class cannot and do not pay their own expenses, therefore the retailer, to save himself from bankruptcy, is compelled, in order to balance this 2½ per cent. loss, to introduce a preparation of his own which admits of a larger profit, and then strike the average. With all due respect to Messrs. Elliman, it seems to me unfair to look upon the retailer as a kind of relieving officer to find this 2½ per cent. out of his own pocket without grumbling, and for them to expect more than even human nature, to say nothing of commercial nature, can possibly give. My contention is, given a good article, with a good name, a living profit—and by this I mean a profit sufficient to pay its own working-expenses and leave a decent margin for the retailer—the interest in substitutes would vanish. There is not the least doubt that by giving so small a profit, and thus making it impossible for the small retailer to live, makers of proprietary articles are gradually closing up the number of outlets for distribution, throwing the distributing business into fewer and more influential hands, who, to a large extent, push their own preparations, and thus to all intents and purposes close the avenue to the public against themselves. Personally I always give the customer the preparation asked for without comment, but naturally only show those which pay their own expenses and help to provide a living. Certainly no retailer can afford to give his own time free and 2½ per cent. contribution towards the working-expenses of any patent; but the protection of price is quite as much a vital necessity for future success to the proprietors of Elliman's embrocation as it is to any retailer.

Faithfully yours,

Aylesbury.

W. SURFLEET.

SIR,—In reply to Messrs. Elliman's question "Is Protection Worth While?" I wish to say "No" to their one-sided agreement. They, with B. W. & Co., Angier's emulsion, Phosferine, Owbridge, etc., have a private protection scheme, and I will try to show how it works. In this district we have co-operative societies, who are supplying all these firms' goods at their minimum prices, and also giving rebates of 1½d. in the 1s. to members and 1d. in the 1s. to non-members. If Messrs. Elliman's and the others will put their goods on the P.A.T.A., they will receive the same generous treatment as the other P.A.T.A. goods do. If they are afraid of offending their co-operative friends, let the co-ops. do the displaying of their goods. They will soon find the co-ops. are as big substitutes as any private firms. I, with many chemists in this district, refuse to show any showcards, have any window-letters, or

handle any advertising matter, or encourage the sale of any goods not on the P.A.T.A. list. If all other chemists throughout the country follow out the same principle, the other firms will be asking the same question. Why should we, as retailers, help firms to make a demand for their goods, and then let the co-ops. fill the supply?

Yours faithfully,
FAIRPLAY. (68/52.)

SIR,—I am glad Messrs. Elliman have raised this question, as it is high time that qualified chemists should carefully consider their position in relation to the stocking and distribution of proprietary goods. I have been toiling in the drug-trade forty years, and I would fain flatter myself that I am still carrying on the business for my own interest and emolument, and not altogether as one of the medley distributing depots of the patent-medicine proprietor, who wants me to utilise my window, showcases, and front of counter for the display of his showcards, dummies, and goods. I must not use a handbill or mention that I can make an embrocation. At the dictation of the patent-medicine proprietor I am to sink my personality, "shut down" my pharmaceutical knowledge, acquirements, and certificate, find capital to keep open shop, and stand therein seventy hours a week like a "slot-machine," to hand out certain proprietary medicines at 1d. and 1½d. a time, and feel thankful for the proud privilege to do so. I have come to the conviction that with the average turnover and working-expenses of 18 per cent., the chemist cannot live to hand out proprietaries at 10 per cent., 12½ per cent., and 15 per cent. profit, and the proportion of this section of the trade is fully one-half in shops in industrial districts. However much we may desire to retain the proprietary trade, we shall not be permitted to do so, as the co-operative stores, grocers, and other dealers are certain to absorb it. In my district it is rapidly becoming so, and I am inclined to think it is so throughout Lancashire, Yorkshire, and other industrial districts and populous centres. Why do we strive to retain—by the P.A.T.A. or any other means—this destructive element in the business? Chemists, awake! arise! There is just time for you to save yourselves by forming a Guild of Qualified Chemists Mutual Supply Association, Ltd., united and strong, with your own laboratories, manufacturing and packing rooms, your warehouses, etc., all centrally situated for quick and cheap transit of goods. It would enable you to fight to a finish with certainty of victory the co-operative store, the limited liability cash chemist, the grocer, or any other dealer.

Yours truly,
CHEMIST BY EXAM. (67/90.)

Drug-contracts.

SIR,—Among your many readers there must be some who have given a thought as to where their local borough or urban councils purchase disinfectants and similar articles connected with the drug-trade. If this is looked into it will be found that a large amount of money is spent on these goods, and that it goes to firms outside the district. Surely in these days of heavy rates this trade could be tendered for and let locally. As a close and observant reader for some time of THE CHEMIST AND DRUGGIST, I have noticed cases where goods are supplied by firms at prices which are lower than their best terms to the trade. I should like to learn the views of others on this matter, as nowadays we cannot afford to let any business go by that it is possible to secure.

Yours faithfully,
G. H. D. (67/63.)

"The Great Unpaid," or Wisdom While you Wait (at the Counter).

SIR,—If chemists are never to close while humanity suffers the various ills that flesh is heir to, the logical conclusion is that all pharmacies should remain open twenty-four hours per day, and the night-bell be abolished by Act of Parliament. Why should London (or Melbourne) wait outside the shop-doors because some lazy pharmacist (who has only stood behind the counter some twelve or fourteen hours serving penn'orths and giving gratuitous advice and assistance) pretends he needs such luxuries as rest and recreation? Of course, one could go to the doctors or the dentists, but that costs money; while a chemist's diagnosis of toothache, neuralgia, coughs, and colds, being illegal, is given free, nor dare he refuse it, lest custom be taken elsewhere. That

honest citizens should be deprived of such a convenience, and doctors and dentists inconvenienced by calls "during Sundays, bank holidays, and after 9 P.M. on week-days" by these Early-closing Acts is scandalous, and the C. & D. has done well to publish Mr. Augustus Kent's manly and public-spirited protest.

Yours faithfully,
Paris, March 15. ECONOMICUS SWEATING'EM.

Papain in Cancer.

SIR,—Please pardon my drawing your attention to an error in your number of January 26, 1907, p. 126. The suggestion and the experiment of the use of papain in cancer belong to Dr. W. J. Branch, of St. Kitts. Following his suggestion, I have tried papain in an ointment with lanolin on a small rodent ulcer, but without any effect, though the treatment was continued for several weeks. The injection-treatment is still being experimented with.

Yours faithfully,
C. W. BRANCH.

Colony Hospital, St. Vincent, B.W.I., February 27.

Letters in Brief.

PIPETTES.—*Abel Scholar* writes: "I should like to see pipettes excluded from chemical-laboratories under pain of severe punishment. Who has not in his chemical career during their use got a "mouthful" of something or other? I strenuously object to their use in my laboratory for many reasons, and have substituted the glass-stoppered burette graduated in 0.1 c.c., and I recommend others to do the same."

CHEMISTS' GRIEVANCES.—*Discouraged* (68/36), who is a M.P.S., asks: "Why should not young men who have been apprenticed to a chemist for the usual term, who have paid a handsome premium, and can show their parchment indentures, not be allowed to sell poisons without supervision? Must a poor country chemist keep a qualified man to sell pennyworths?" He is glad to see that they are trying to get a title for the Apothecaries' Hall assistant dispensers, etc. Surely, if they can make and dispense potent medicines for patients, they ought to be allowed to sell them. He also objects to the ridiculous remarks made by Mr. Barker, M.P., that apprentices should not be allowed to dispense.

Legal Queries.

See the "C. & D. Diary, 1907," for much legal information as to all trade matters. In any circumstance not covered by the articles therein, state the case explicitly with all particulars and submit to the Editor.

Alpha (58/13).—You are not legally required to show your poison-book to the police. See the *C. & D. Diary*, 1907, p. 244, 24. All that is legally required of you in court, if you are called there as a witness, is to answer the questions put to you (provided they do not incriminate yourself), and you may use the poison-book to refresh your memory. Whether you show it or not to the Magistrates depends upon the circumstances.

J. W. W. (189/1).—The D.D.S., or doctor in dental surgery diploma, is granted by several reputable universities in the United States, a curriculum (two or three years) and examination being requisite—the longer period in the case of persons who have no other dental qualification. In regard to these you may write to New York Dental School, 218 West 135th Street, New York; Harvard University, Boston, Mass.; Michigan University Dental School, Ann Arbor, Mich.; or Baltimore College of Dental Surgery, Baltimore, U.S. There are others of similar class. Several so-called universities confer a dental degree without residence, and practically for a money payment; such degrees are not worth the paper they are written upon, and it is unlawful for unregistered dentists to use them in this country.

Bath (65/38).—The point as to payment of an assistant during illness is dealt with in our *Diary*, p. 246. To stop your liability you must give him the agreed upon notice.

D. S. A. (69/64).—Your labels bring the preparations within the known, admitted, and approved remedy exemption, in so far as they contain an adequate indication of the ingredients.

E. M. C. (69/53).—We only know of one cough-lozenge sold by confectioners which is permitted to be sold in bulk labelled "—'s cough-lozenges." Permission is of old standing and is partly in the nature of a concession, but medicines are not dutiable until they are taken from bulk and put in an enclosure for retail. The permission does not extend to the latter, and if the confectioner retails the lozenges in a packet or other enclosure they are dutiable.

S. Smith (69/25).—It is illegal to make perfumes with methylated spirits or to add essential oil or other flavouring thereto without the express sanction of the Commissioners of Inland Revenue.

Miscellaneous Inquiries.

We endeavour to reply promptly and practically to trade questions of general interest, but cannot guarantee insertion of replies on a particular date, nor can we repeat information given during the past twelve months.

Ungt. (52/57) writes: "I would be much obliged for a formula for a green ointment with the consistence of vaseline, smell somewhat like ung. hyd. nit., and useful in eczema." No reason is given why certain physical properties are needed. If the ointment is required to imitate another, why should "Ungt." pass the problem on to us?

M.P.S. (53/60); *J. B. M.* (54/57).—OPTICAL EXAMINATIONS.—We gave full particulars of these in the *C. & D. Educational Number*, August 11, 1906. This copy can still be obtained from the Publisher. We also answered several inquiries as to optical instruction in the *C. & D.* as recently as January 19, p. 101.

Water Softener (61/55).—It is necessary in your case to know the hardness of the water and the proportion of it which is temporary, as water-softeners only remove the latter, and not permanent hardness. See Mr. Hughes's article in our Winter Issue.

Pains (53/45).—The morphine will be precipitated from the opium-liniment by the ammonia in the compound camphor liniment, and make the opium-liniment useful only for colouring-purposes. Try the following:

Lin. saponis ...	...	...	3xx.
Lin. camphoræ co. ...	...	...	3xij.
Chloroformi ...	...	...	3x.
Capsici ...	...	...	3j.
Cocci cacti ...	...	...	3j.

Macerate for three days, and filter.

Guillaume (60/59).—ACNE ROSACEA.—The course of treatment for a young man of twenty should consist in painting the affected parts with the following lotion every night:

Sulphur. præcip.,	...	...	aa. 3iv.
Calamini ...	...	...	3j.
Glycerini ...	...	...	3j.
Aq. rosæ ad ...	...	...	3iv.

The following also is sometimes very effective, although somewhat unpleasant:

Ichthyol. ammon. ...	...	...	3j.
Aquam ad ...	...	...	3j.

If the irritation is very great, it is best to use the first lotion, omitting the sulphur until the irritation settles down. Many experts now consider that "rosacea" is seborrhœa (dandruff) which has spread to the face. It is therefore advisable to attend to the head if there is any scurf. This should be washed twice a week with equal parts sapo. mollis, B.P., and S.V.R., followed by hot water and an ointment containing salicylic acid and sulphur each 15 to 30 grains and vaseline 1 oz. rubbed into the roots of the hair, or the following lotion may be daubed on with a head-lotion sponge:

Acid. salicylic. ...	...	...	3j.
Sulphur. præcip. ...	...	...	3ij.
Glycerini ...	...	...	3iv.
Aquam ad ...	...	...	3vj.

The bowels and general health should be attended to, and alcohol and all condiments avoided.

Pediculi (65/10).—LICE ON CATTLE:

Bruised stavesacre ...	...	...	1 lb.
Carbonate of potash ...	...	...	1½ oz.
Water ...	...	...	40 oz.

Mix well, and bring to the boil, allow to simmer for a quarter of an hour; cool, strain, and press, adding, if necessary, sufficient water to the marc to get out 30 oz. of liquid; to this add—

Crude carbolic acid ...	...	...	1 oz.
Methylated spirit ...	...	...	9 oz.

A teacupful of this to be added to a gallon of warm water to sponge the animals.

In cases where this wash cannot be resorted to, carbolic-acid vapour may be tried.

Ignoramus (68/48).—A teaspoonful of the cordial drink twice a day will suffice for lambs. Note that you omitted the water from your copy of the formula.

G. (68/21).—All communications to us must be authenticated with the name and address of the writers.

H. B. (40/64).—(1) ENGINEERING SOCIETIES.—Apply to the secretaries of the following institutes for particulars of membership: Institute of Civil Engineers, Great George Street, Westminster, S.W.; Institute of Mechanical Engineers, Storey's Gate, Westminster, S.W.; Institute of

Electrical Engineers, 92 Victoria Street, Westminster, S.W. (2) POPULAR CHEMICAL LECTURES.—It should not be difficult to devise an interesting lecture illustrated with experiments on a chemical subject. Take, for instance, the simple gases, metals, metalloids, or any group of chemical substances, and you will find they readily lend themselves to illustrative treatment. If you have access to a file of *THE CHEMIST AND DRUGGIST*, you will find in vol. xxxvi. (1890) several ready-made lectures.

Kupro (Bulawayo) (47/35).—RIFLE-BARREL CLEANING.—The tablets you refer to as used for cleaning the interior of rifle-barrels fouled with nickel are composed of a mixture of ammonium persulphate with a small percentage of ammonium carbonate. When required for use two 1-gram tablets are crushed and dissolved in 40 c.c. of a mixture of liquid ammonia and water. The process is covered by a patent in Great Britain.

W. S. (66/66).—MANUFACTURE OF YEAST EXTRACT.—The first process for making yeast extract is that of Kressel, invented in 1895. The method is to take brewers' yeast, preferably "bottom" yeast, wash it three times to remove the bitter taste, remove the water, and subject to a temperature not exceeding 58° C.—i.e., to a temperature high enough to kill the yeast cells without coagulating the albuminoids. The resulting product is strained, filtered, and concentrated. It is stated that 5 kilos. of pressed yeast yields 0.75 kilo. of extract containing about 20 per cent. of moisture. Hill-Jones subsequently modified the Kressel process with a view to rendering all the proteid matter soluble. After the application of heat he added in the vacuum-pan digestive agents—a mixture of sugar of milk, pepsin, pancreatin, ptyalin or diastase, lactic acid, and hydrochloric acid. Another process that has been worked on a large scale is that of O'Sullivan. In this case pressed yeast is packed into suitable vessels, and kept at a temperature of 80° to 100° F. for eight to ten days. The semi-liquid product is then preferably diluted with water, filtered, and the filtrate first heated to 150° to 160° F., being subsequently boiled, and finally again filtered and concentrated. The endeavour is made in this process to eliminate the cell walls of the yeast and the bitter substance contained in yeast which is derived from the hop resins. The Watson process tried to do this by washing the yeast with alcohol, but probably the difficulties in the use of pure alcohol for industrial purposes were insurmountable. The Peeters' process involved the use of a vegetable acid in the preliminary washing of the yeast, and alcohol was used to purify the syrupy extract towards the end of the operation. There are other methods in which heat is used to burst the yeast cells, one of these—Overbeck's—being protected by a patent still in force. The flavour of the extract, which resembles extract of meat, develops during the heating-process, and one investigator has shown that this flavour can be removed by alcohol, which seems to point the way to prepare a meat flavour for various purposes.

Sciamaus (43/12).—BOOK ON FERTILISER ANALYSIS.—We can find nothing on this subject that falls within the restrictions you lay down. The most complete work on the analysis of fertilisers and manures is vol. ii. of Wiley's "Agricultural Analysis" (Chemical Publishing Co., Easton, Pa.). Most books on agricultural analysis contain a chapter on the subject. In Addyman's "Agricultural Analysis" (Longmans, 5s.) there is a chapter of thirty pages on the analysis and valuation of manures, and about the same space is devoted to the matter in Griffith's "Treatise on Manures" (Whittaker, 7s. 6d.).

J. J. B. (56/18).—GLUE-METERS are generally graduated to show the percentage of dry glue in a glue liquor, but a table such as you refer to for use with a Twaddle's hydrometer might be obtainable from a dealer in scientific instruments.

H. K. (Ostende) (57/18).—BOOKS ON OIL-REFINING.—Fritsch's "Fabrication et Raffinage des Huiles Végétales" (Deforges, Paris); "Andé's "Vegetabilische Fette und Öle" (Hartleben's verlag, Wien). There is an English edition of the latter published by Scott, Greenwood & Co. at 10s. 6d.

S. A. R. (Hyderabad) (66/60).—BOOKS ON SHEEP-FARMING.—Evershed's "Practical Sheep-farming" (Jarrold & Sons); Scott's "Practice of Sheep-farming," 5s. (Jack, Edinburgh); Heatley's "Sheep-farming," 7s. 6d. (W. H. Allen); Armata's "Sheep—Varieties and Management in Health and Disease," 1s. (Warne). BOOKS ON POULTRY-FARMING.—Tweed's "Poultry-keeping in India," 6s. (Thacker, Calcutta); "Notes on Poultry-keeping in India," 1s. (Higginbottom, Madras); Sutcliffe's "Poultry-farming," 1s. (L. U. Gill).

* * Correspondence received after Wednesday, March 20, was too late for this issue. Communications for next week should be delivered at 42 Cannon Street, not later than Tuesday, March 26.

ASSISTANT or Branch Manager; 28 years' experience; married; unqualified. Blewitt, Normanton, Yorks.

LOCUM; qualified; reliable; 27; exceptional experience; good appearance. Quinn, 35 Guildford Road, Stookwell.

UNQUALIFIED; 28; West London experience; Photographic; disengaged 25th. "P., 17 Oxford Road, Ealing, W.

MANAGEMENT required by qualified Chemist. If you require a business worked up, write 71/62, Office of this Paper.

ASSISTANT; good all-round; reliable; abstainer; gentlemanly; good references. "Presto," 56 Brunswick Road, Leyton.

LOCUM; qualified; experienced; excellent references; disengaged. "Caius," 8 Sedlescombe Road, Fulham, S.W.

AS Improver; 2½ years' experience with Doctor; London preferred; salary expected 15s. per week. Shortland, 107 High Street, Marylebone, N.

MANAGER; Branch or widow; qualified; good Prescribing experience; disengaged; abstainer; unmarried; permanency. 193/26, Office of this Paper.

ASSISTANT; good Counterman and Dispenser; 7 years' West-end experience; used to good-class business; town or country. 199/32, Office of this Paper.

ASSISTANT or Branch; 25; married; Extractor, Photographer, and good general experience; disengaged. "Forceps," 22 Newgate Street, Barnard Castle.

CHEMIST'S Assistant; unqualified; first-class all-round experience; good references; photo. Matthews, Dundas Terrace, Marske-by-the-Sea, Yorks.

AS Branch Manager or Assistant; long, varied experience; energetic, trustworthy; aged 45; well recommended. "Statim," 7 Charlwood Road, Putney, W.

MANCHESTER District.—Junior, 6½ years' experience, seeks situation; Dispensing, Optics, Photography. H. Moss, 24 Dean Street, South Shore, Blackpool.

SITUATION Required as Manager; qualified; married; 34; excellent references and experience; Dispenser; Prescriber, etc.; permanency. "Statim," 64 Forester Street, Stalybridge.

YOUNG qualified Chemist, with best Home and Continental experience, speaking French, seeks situation in May; permanency or season. Elève, Pharmacie Groscurin, Beaulieu-sur-Mer, South of France.

PERMANENCY desired by active, qualified, single man, with good, varied experience; any class trade; town or country; brisk business preferred; view to agreement or small interest; disengaged shortly. "Permanent" (198/35), Office of this Paper.

WANTED, in London or suburbs, employment in high-class Chemist's by Medico; L.M. Rotundo Lying-in Hospital; first half Apothecaries' Hall; gold medallist "Materia Medica"; possible view to partnership. Write, Watson, 8 Redburn Street, Chelsea.

MINOR, highest-class London and provincial experience, desires position in a good-class business in London, with view to interest in the same; W., S.W., S.E., or N. district preferred; or a position in a Wholesale house. Address, "Minor" (202/25), Office of this Paper.

WHOLESALE.

TRAVELLER or position of trust in Wholesale. "Pat" (200/11), Office of this Paper.

SIDE-LINE wanted by energetic traveller; part expenses and commission. 204/3, Office of this Paper.

TRAVELLER, qualified, sound connection Lancs and Yorks, desires first-class additional Agency. 201/6, Office of this Paper.

YOUTH (18) desires position in Wholesale Druggist's, wishing to acquire knowledge of business. 198/13, Office of this Paper.

ADVERTISER seeks re-engagement in London Wholesale house; 10 years' experience; highest reference. Apply, 203/29, Office of this Paper.

ESSENCES, Perfumery.—Wanted, good position; test capability, any sample matched from suitable firm. "Secnts" (201/35), Office of this Paper.

CLERK; 21; 6 years with Wholesale Druggist and Chemist; French, German, shorthand, and good knowledge of bookkeeping; salary 25s. 200/3, Office of this Paper.

TRAVELLER, qualified Chemist, good connection Lancs, Yorks, and North, desires to Represent first-class house, calling upon Medical men or Chemists. 201/60, Office of this Paper.

TRAVELLER (or responsible position indoors), connection North of England, is open for engagement, Drugs or Sundries; first-class houses only. "S. K." (202/3), Office of this Paper.

AS Representative of a good house for South Africa; many years' experience; large sound connection, and well known both in Africa and this country. "F. S." (200/13), Office of this Paper.

JUNIOR (22), of good education and character, seeks situation without counter work; low salary if advancement possible; good Pharmacist. "Mancunian," 81 Waterloo Road, South Shore, Blackpool.

TRAVELLER in Chemical products, with good connection in Italy, wishes to Represent good English house for Pharmaceutical Specialities. Particulars, Adr. Dr. Ferrero, Via Manyoni 17, Milano.

CANADA.—Wholesalers, are you represented? If you wish to be mail me particulars and terms, F.O.B. Liverpool prices, &c. Geo. Trowell, 474 Main Street, Winnipeg, Canada (c/o Connell & Co., Druggists).

SMART Traveller, with excellent references, calling on Grocers, Oilmen, and Chemists and Druggists in Eastern Counties and London and Suburbs, is open to Represent first-class firm. "H. E.," 234 Thorold Road, Ilford.

CHEMIST, aged 27, Englishman, with Continental education, 4 languages perfectly, experience in German Laboratories and works, desires situation in England or Colonies. Address "Chemist," c/o Berry's Advertising Agency, 180/1, Fleet Street, London.

AS Representative.—Gentleman, of good address and well educated, wishes to Represent a good Drug or Sundries house in the North-East of England; good experience in Retail, also in Travelling; disengaged. Address, "N. C." (200/15), Office of this Paper.

TRAVELLER; disengaged; Drugs, Sundries, Perfumes, Soap, Packed goods, with a 7 years' steady record of sales to 1,500 Chemists, Stores, and Shippers; qualified; aged 33; Agencies or Commissions entertained. "Ability" (204/7), Office of this Paper.

REPRESENTATIVE desirous of representing good Sundry house; sound connection with Chemists, North, East, and South; 6 years with last employers; highest references; salary and expenses; abstainer. "A.," 23 Upper Park Road, Hampstead, N.W.

MISCELLANEOUS.

RECEIVED FEB. 6, '07.

"Although mixed up with Optics for some time, I have not hitherto known anything of the theory, but now that it is being unfolded to me I find it exceedingly interesting." From one of my pupils. Particulars of tuition from

E. E. Bamister Practising Optician, BLOXWICH.

MCADAM & TUCKNISS, Sharedealers, 30 Tranquil Vale, Blackheath, London, S.E. Telephone 81 Lee Green.
SHARES FOR SALE (free of commission, subject).—10 Apollinaris Ordinary, £6 7s. 9d.; 20 Brunner Mond, £5 17s. 6d.; 231 Camwal Ordinary 6s.; 33 Preference 15s.; 10 E. Cook & Co. Preference, £8 7s. 6d.; 100 Benger's Ordinary, 27s. 9d.; 150 Ilford Ordinary, 12s. 3d.; 100 Preference 16s. 3d.; 100 Sanitas, 22s. 6d.; 200 Claudius Ash Preference, 22s.; 62 Meggeson Preference, bid wanted; 70 International Sponge Preference, 12s. 6d.

WANTED (subject).—20 Dentals, 97s.
List of shares for sale and wanted sent free on application. Bankers, London and County. Established 1898.

CHEMISTS' SHOP-FITTINGS (SECOND-HAND).—Ranges mahogany drawers, with bevelled-edge glass labels and cut-glass knobs, shelving above, lockers below; mahogany dispensing-screens, counters with glass-case fronts, wall-cases, bent-front and flat-top counter-cases, counter-desks, tooth-brush cases, complete shop-rounds, etc.; every requisite for Chemists; extensive stock to select from at extremely low prices; practical men sent to all parts; illustrated catalogues and estimates free. **MATTHEWS, CHEMISTS' FITTER**, 14 and 16 MANCHESTER STREET, LIVERPOOL.

SHOP-FITTINGS.—12-ft. handsome drug-fitting, with 60 mahogany-fronted, bevelled-edge labelled drawers, with pilasters, cornice, and shelves and lockers, £12 10s.; 12-ft. solid mahogany and plate-glass counter, £10; 7-ft. exceptionally handsome dispensing-screen, counter, and sponge-case, £14 10s.; and quantity of others at low prices. **Philip Josephs & Sons, Ltd.**, 93 Old Street, Goswell Road, London, E.C.

GREAT BARGAINS in Second-hand Shop-fittings.—The Fittings of a Shop, including range of drawers, with glass labels, £32; 1 6-ft. bent front plate-glass counter case, splendid value, £5; 1 10-ft. window enclosure, mirror centre, complete, £4; 1 good shop clock, 12 in. dial, 17s. 6d.; 12-ft. range of pine drawers, with gold labels and glass knobs, £6; 1 Canary-wood wall-case, 5 ft. by 9 ft. £6; 144 stoppered bottles, gold labelled, sufficient for a shop, £5 15s.; 11 doz. recess-label rounds, job line, £9 10s.; 1 set of 3 3-ft. plate-glass shelves, standard bars and brackets, 35s.; 1 6-ft. mirror-centre dispensing-screen, £4 15s. **R. TOMLINSON & SONS**, Headquarters for Second-hand Fittings, BOND STREET, BIRMINGHAM.

I HAVE GOT FOUR LEFT,

but there is another 100 coming in during the week, of my handy **TOOTH BRUSH SHOW CARD STANDS**, which more than 700 Pharmacists are using. From Sanger's, Quilliam's, Newbery's, at 2/- net, or post free from inventor for 27 stamps.

Bernard Slack. 319 High Street,
WEST BROMWICH.

£35.—Mahogany fitting, 10 ft., 48 drawers, glass knobs and labels; 5-ft. mahogany and plate-glass screen and counter; 10-ft. mahogany top counter; wall-case, mahogany and plate-glass; perfume case and desk, mahogany and plate-glass; inspection invited. Call or write, **Rudduck & Co.**, 262 Old Street, London, E.C.

SHOP-FITTINGS. SECOND-HAND FIXTURES.—Chemists requiring additional fittings or opening new premises would find it to their advantage to write us for particulars and photographs; we have a large assortment of second-hand fittings at rock-bottom prices. **WALTER KNOWLES & CO.**, 83 VICTORIA STREET, LIVERPOOL.

SOLE AGENCY FOR GERMANY.

A well-known firm which sends travellers twice a year to all doctors, etc., on the Continent would be open to take **sole agency for Germany** for well-approved Pharmaceutical specialities. Please send offers and particulars to **Herrm. SCHNEIDER, Berlin, Charlottenburg, Pestalozzistr. 103.**

REMEMBER.

The price is right, the paper right, the printing good; size of Handbills, roughly $7\frac{1}{2}$ by $5\frac{1}{2}$; printed with any wording you please.

5,000 4/6, 10,000 8/-, 20,000 15/-, carriage paid in England and Wales.

MARTIN NEWBY, 14 New St., Birmingham.

MEDICAL AND PHARMACEUTICAL PRELIM.—I shall be pleased to recommend my tutor to those preparing for above; postal or personal tuition; success certain. Apply, "Medical" (200/9), Office of this Paper.

OPTICAL EXAMINATIONS.

Chemists wishing to claim exemptions from S.M.C. examinations to which they are entitled must present themselves this year. It is therefore necessary that they should start preparing at once. Instruction, covering whole course of S.M.C. exam., by correspondence or personal tuition given by **W. J. Wright, F.S.M.C., F.I.O.**, 51 Charlwood Street, S.W.

THE HIGHLY PROFITABLE SOLE SALE

of a remedy protected by letters patent in all civilised countries, the application of which entirely prevents flies, gad-flies, and other insects from tormenting animals, is to be given for the whole of Great Britain and Colonies, under very advantageous terms, to a solvent firm. Numerous first-class testimonials at disposal. Correspondence in German desired. Address **T.O. 270, HAASENSTEIN & VOGLER A.-G., Hamburg.**

A NICE BIRTHDAY PRESENT for a Chemist and Druggist, or apprentice or assistant to one, is a copy of "The Art of Dispensing" or "Pharmaceutical Formulas," bound in half-morocco. The first named, thus bound, is 8s. 6d., and the second 12s. 6d. (with 6d. extra for postage), both being obtained from **THE PUBLISHERS**, 42 Cannon Street, London, E.C.

DON'T LET ME WASTE THEM.

I suppose I have got 800 copies left of a booklet that ought to interest all Chemists, entitled "**BUSINESS BUILDING, AND HOW ACCOMPLISHED.**" Don't let me waste them. A postcard brings one; and if you decide to do without MY HELP—well, I lose my fee, and you lose from £20 to £200 a year net profit. 212 successes out of 230 clients.

Bernard Slack 319 High Street,
WEST BROMWICH.

Coming Events.

Notices for insertion under this heading should be received by the Editor on Wednesday of each week,

Tuesday, March 26.

Midland Pharmaceutical Association, No. 5 Room, Grand Hotel, Birmingham, at 8.30 p.m. Mr. E. W. Mann on "Olive-leaves."

Wednesday, March 27.

Sheffield Pharmaceutical and Chemical Society, Builders' Exchange, Cross Burgess Street, at 9 p.m. Professor C. J. Patten on "Man—Past and Present."

Public Dispensers' Association, St. Bride Institute, Ludgate Circus, London, E.C., at 8 p.m. Monthly meeting.

Thursday, March 28.

Glasgow and West of Scotland Chemists' Association, 94 West Regent Street, at 8.45 p.m. Mr. J. R. Hill, "Some Thoughts on (a) the Cupboard for Dangerous Articles, (b) Standards under the Sale of Food and Drugs Acts, (c) Prescriber v. Dispenser, (d) Giving Advice to Purchasers."

FEDERATION OF WEST-RIDING CHEMISTS' ASSOCIATIONS.—It has been decided to hold a dinner at the Grand Restaurant, Leeds, on April 16, at 7.30 p.m. Tickets 3s. 6d. each. Members of Associations affiliated with the W.R. Federation who have not yet promised to attend, and any other friends who would like to be present, are invited to send their names to the President, Mr. Hanson, Queensbury, Bradford, or to the Hon. Secretaries, Mr. Broadhead (Batley) and Mr. Pickard (Ossett).

College Notes.

GLASGOW SCHOOL OF PHARMACY.—Last week the chemistry prizes were presented to the successful students in the senior class—viz., first, Edgar Charles Longmate, London; second, Nettie Kirkwood, Saltcoats; and third, James Bray, Glasgow.

WHERE TO STUDY.

The following educational institutions are advertising in this issue:

School of Pharmacy, 17 Bloomsbury Square, London, W.C.
South London School of Pharmacy, 325 Kennington Road, London, S.E.

Metropolitan College of Pharmacy, 160 and 162 Kennington Park Road, London, S.E.

London College of Chemistry, Pharmacy, and Botany, 323 Clapham Road, London, S.W.

South of England College of Pharmacy, 186 Clapham Road, London, S.W.

Northern College of Pharmacy, 100 and 102 Burlington Street, Manchester.

Manchester College of Pharmacy, 225A and 227A Oxford Road, Manchester.

German News.

GERMAN MINERAL WATERS.—A Bill has been introduced into the Prussian Upper House in order to safeguard the mineral and thermal springs from a national point of view. There are 193 sources of these kinds in Prussia, the waters being used for curative purposes or for the production of table-waters. The Bill deals with the rights of owners of springs and adjoining landowners, the control of any projected alterations in the use of springs, and authorises the State to expropriate springs where the owners utilise them so much as to endanger the continued existence of the sources, or neglect the springs from a health point of view.

WELCOME DISCOUNTS.—How much more gently the pharmacists are treated in Germany in spite of the higher medicine tax can be seen, says the "Zeitschrift der Allgem. Oster. Apotheker Vereines." In several States of the Bund a compulsory discount is provided. This amounts in Bavaria and Hamburg to 10 per cent., only excepting for manufactured goods in original packages. In Hesse it is 10 per cent. if the half-year's total exceeds 20m. In Wurtemberg and Reuss it is 10 per cent. to 15 per cent., according as the account rises from 20m. to 100m. or over 100m. Funds, unions, and institutions get a discount of 20 per cent. when goods are sold on behalf of the poor.

PHARMACY HUNGER IN HESSE.—According to the "Frankfurter Zeitung" there are thirteen communal pharmacies in the kingdom of Hesse founded since the year 1881, resulting in a reduction of the prices for pharmacies in the district. Previously the prices paid by private people for pharmacy concessions had been such as to astound any but experts, so that the public, judging therefrom, thought there were immense profits attached and consequently held unfavourable views of the owners, who are suspected of getting their profits out of a lowering of the quality. The "Frankfurter Zeitung" holds that the Government should see to it that in the transfer of pharmacies a stop be put to these high prices for businesses.

NOT ON THE LABEL.—An action was brought recently in Germany against a wholesale drug and chemical firm on the grounds that in their price-lists and on the labels of their bottles they used the names "Ichthyol" and "Sulpho-Ichthyolicum," with the words, "substitute for," prefixed. The defendant firm contended that customers could make no mistake, as these words clearly indicated that the preparation was a substitute. The Hanseatic Court, however, has now decided that, although the use of these words in the price-list was permissible, as everyone could at once see that it was a question of a cheaper substitute for the original goods, yet that did not apply to the label on the bottle, as the words "substitute for" might easily be overlooked, and customers might mistake the substitute for the original. Therefore the use of the name is considered an infringement on the rights of the manufacturers.

Trade-marks Applied For.

Objections to the registration of any of the undermentioned applications should be lodged with C. N. Dalton, Esq., C.B., Comptroller-General of Patents, Designs, and Trade-marks, at the Patents Office, 25 Southampton Buildings, Chancery Lane, London, W.C., within one month of the dates mentioned. The objection must be stated on Trade-marks Form No. 7, cost £1, obtainable through any money-order office.

(From the "Trade-marks Journal," February 27, 1907.)

"SALVOTOL"; for chemicals in Class 3. By Reynolds & Branson, Ltd., 13 Briggate, Leeds. 289,932.

"TAKA"; for diastase, koji, moyashi—ferments in Class 42. By J. Takamine, 521 West 179th Street, New York, U.S.A. 286,557.

"IRONSIDES"; for candles, soap, detergents, etc., and for perfumery. By Christopher Thomas & Bros., Ltd., Broad Plain, Bristol. 289,059, 289,060.

"JUCO" and device of a horseshoe; for an aromatic bath-salt. By June & Co., 36 High Road, Balham, London, S.W. 287,610.

"PERLENE"; for a skin-preparation. By E. A. Sanderson, 38 Fordel Road, Catford, London, S.E. 288,809.

"RISCO"; for a toilet-preparation. By H. N. Morris & Co., Mile Street, Manchester. 288,321.

"NURSERINE"; for hair-preparations. By M. Smith, 54 Oxford Street, Kidderminster. 289,152.

"ICELAVA"; for perfumery. By G. Brisley, 2 Wilton Court Mansions, Bexhill. 289,487.

"SHEM EL NESSIM"; for perfumery. By J. Grossmith, Son & Co., 29 Newgate Street, London, E.C. 289,676.

"AGON" and device of a swallow; for infants' feeding-bottles. By G. A. Lloyd, 101 Upper Parliament Street, Liverpool. 289,258.

(From the "Trade-marks Journal," March 6, 1907.)

"HERMITINE" (label-device); for a disinfectant and deodoriser. By British Hermitine Co., 97 Hatton Garden, London, E.C. 287,738.

"KILGRUB"; for an insecticide. By J. Peak & Co., Soho Street, Newtown, Wigan. 289,956.

"PEPTO-FER (JAILLET)" on label-device; for a pharmaceutical preparation. By L. H. & E. Darrasse & Cie., 2 rue du Marché des Blancs-Manteaux, Paris. 287,386.

"HUNYADI"; for medicinal salts and for mineral waters. By A. Saxlehner, 3 Andrássy Street, Budapest. 287,423.

"PROTARGOLOIDS"; for a pharmaceutical preparation. By Farbenfabriken vorm. Bayer & Co., Elberfeld. 287,743.

"DOAN'S OINTMENT" and device; for an ointment. By Foster, McClellan Co., 8 Wells Street, London, W. 289,047.

"BLAUDIUM" ("Blaud" disclaimed); for chemicals in Class 3. By A. Flugge, Savestraße 4, Hanover. 288,630.

"MINERUNGUENTA"; for an ointment. By Oldfield, Pattinson & Co., New Bridge Street, Manchester. 288,643.

"PAMALINE" and label-device; for a medicinal remedy. By Pamaline Malaria Remedy Co., 52 Broadway, New York, U.S.A. 289,079.

"NEU-SCI-RHEU-GOU"; for bath-salts. By H. B. Crawford & Co., Ltd., 28 Queen Street, Huddersfield. 289,302.

"EUTRUXYLFORM" on leaf-device; for a dental local anæsthetic. By F. B. Sleigh, 41 Market Place, Willenhall, Staffs. 289,338.

"SNOBAZA"; for medicines. By A. Bazhanoff, 49 Moorgate Street, London, E.C. 289,516.

BEECHAM'S PILLS CASE.—At the Old Street Police Court on March 22, Alexander Smith, describing himself as a commercial traveller, who stands charged on a warrant with feloniously receiving 80 dozen of Beecham's pills, the goods of Alfred Tebbutt, trading as Sutton & Co., of Chiswell Street, Finsbury, surrendered to his bail for further examination. The facts as stated by Mr. Margetts, solicitor for the prosecution, have already appeared in our columns, and at this hearing Mr. Margetts said that the man Gledhill, to whom dealings with the pills had been traced, was wanted as a witness, but had disappeared since the police inquiries. He now completed the evidence by calling the chemist of Dulwich who had purchased from Gledhill, and Mr. Butler, a manager for Suttons, who said that Gledhill at an interview had given Smith as his source of supply.—Mr. Cowl submitted that there was no evidence showing that a felony of the pills had been committed so as to saddle the prisoner with the liability of receiving.—Mr. Biron said he should leave the case to a jury, and committed the prisoner for trial at the North London Sessions. Bail in 20l. was allowed.

Exchange Column—Bargains.

TERMS.

One halfpenny per word with name and address. One penny per word if we register the address and attach a number.
No Advertisement inserted for less than 6d.

FOR DISPOSAL.

BOOKS AND PERIODICALS.

- "MARTINDALE," 11th edition, clean and in good condition; what offers? DRING, Teignmouth.
"THE MODERN PHYSICIAN," 5 vols. complete, excellent condition; cost 35s. net; what offers? HUGHES, 11 Carlton Terrace, Swansea.
"MODERN PHYSICIAN," Dr. Andrew Wilson, latest, 5 vols., 30s.; art of compounding, "Scoville," 10s. "DUNCLIFF," 59 Gladstone Avenue, Manor Park, E.
SECRET Remedies Analysed.—Pamphlet showing ingredients of all prominently advertised patent medicines of every description; 7d. post free. R. H. MARX, Bain Square, Dundee.

DRUGS AND CHEMICALS.

- 5 CWT. pure citric acid B.P. for sale; what offers? 198/34, Office of this Paper.
WHAT offers?—1 lb. ol. lavand. ang. opt., 1900; 4 lb. potass. iodid.; both unopened; 3 2-gal. carboys, 2 6-gal. ditto, 4 Winchester's ol. nucis. HINDE, Chemist, Stoke Ferry.

FORMULÆ.

- NOTHING pays like your own specialties; Lee's 100 practical recipes contain all that the up-to-date chemist requires, 2s. 6d. post free. LEE, Chemist, Teddington.
GENUINE, new, high-class "toilet preparation," snow white, easily, cheaply made, splendid summer line, supersedes all others, semi-solid, not sticky or greasy; testimonials, perfectly harmless, excellent skin food; satisfaction guaranteed; price 1s. 6d. ALBERT, 100 High Street, Street, Somerset.
ICE-CREAM Formulæ.—I have the reputation of making the best ice-cream in the United States. I use no eggs, no gelatine, no cooking. My cream is rich, highly flavoured, smooth as velvet, heavy body. Ten gallons can be made in less than 20 minutes at a cost of 2s. per gal. Satisfaction guaranteed. Formulæ sent to any part of the world on receipt of remittance for 8s. K. A. BACHMAN, Winona, Mississippi, U.S.A.

OPTICAL AND PHOTOGRAPHIC.

- ½-PLATE Pool camera, Thornton-Pickard shutter, 2 double dark slides and accessories, condition as new, scarcely used, total value over £4; will exchange for shop-rounds, drug fittings. "CELERITAS" (197/38), Office of this Paper.

PROPRIETARY ARTICLES.

- THREE Kissingen, 4 Vichy varalettes, 2 Joy's cigarettes, one each lineal liniment 2s. 9d., Holloway's ointment, 2s. 9d., Omega oil 1s. 1½d., Clarke's mixture 11s., Godfrey's extract 2s. 9d.; all half cost; what offers for Virol? EWING, Alnwick.

SHOP FITTINGS.

- TWO 2-gal. pear-shape show carboys, cut stoppered (Beatson's), for 10s. LESLIE, Chemist, Haddington.
MAHOGANY counter-desk, 4 ft. by 2 ft., glass screen; also iron mortar, 14 in. diameter; what offers? 201/36, Office of this Paper.
SHOW-STAND, 3 plate-glass shelves, brass pillars, 30 in. long, 30 in. high; price 22s. 6d. "CHEMIST," 233 East India Dock Road, Poplar.
ABOUT 150 stoppered rounds, gold labelled, and contents; also ointment-jars, syrup-bottles, etc.; any reasonable offer to clear. "N." 198 High Street, Lewisham.
TO a beginner or Chemist opening a high-class branch.—Compulsory sale of the entire fittings, fixtures, and utensils of an elegant pharmacy will be sacrificed for cash; seen by appointment. Apply, SCOTT, 57 Lower Clapton Road, London, N.E.

SHARES.

SHARES for sale. See p. 65.

MISCELLANEOUS.

- URINAL rubber, male (Maw's), quite new, night or day. "DUNCANSON, Chemist, Stirling."
SET of 8 new tooth-forceps by best London makers; take 36s., cost double. 99 Walsworth Road, Hitchin.
OVERSTOCKED.—Several barrels motor-car oil, machine oil, mineral colza; what offers? SLINN, Chemist, Nuneaton.
MORRISON chair, D. M. Co.'s make, with attachment, nearly new, price £9 10s.; also small vulcanizer 20s., and 100 odd composition pin teeth 15s. H. A. POVAL, 19 Railway Approach, London Bridge.
BOUGIE mould for 12, 7s. 6d.; 4 1-oz. sol. adrenalin chlor. (P. D. & CO.), 1 oz. each helmitol, hydrastin, papain-finkler, phenalgin, salocoll, salophen, tannalbin, tetronal, 2 oz. each cocaine hydrochlor., chloretone, urethane; what offers? GREEN, 108a Elgin Avenue, W.
BOTTLES.—About 20 gross 2-oz. square, pale green; 30 gross 2-oz. square, amber; 6s. 6d. per gross; 10 gross carriage paid; 6s. per gross for the lot; 10 gross 6-oz. heavy ovals, 6s. gross; 10 gross 4-oz. sauce bottles, 3s. 6d. gross; 2 gross 2-oz. sauce bottles, 3s. gross. ADAMS, Chemist, Mansfield.

WANTED.

- 60-FT. oxygen cylinders wanted. HARRISON, Grayshott, Haslemere.
PLATINUM, disused, for cash. P. ROWSELL, 11 Crebor Street, Dulwich.
ABOUT 10 doz. shop-rounds, good condition; cheap. 200/2, Office of this Paper.
EMPTY ess. coppers and leads; best price given. 204/5, Office of this Paper.
C. & D., also B. & C.D., December 1, 1906. MARTIN, 112 Manor House Road, Newcastle-on-Tyne.
DENTAL chair and dental engine, in good condition. Lowest price, 199/2, Office of this Paper.
MINOR books, chemists' books, for cash or exchange. GOWER, Bookseller, Waterloo, Liverpool.
SPECIMEN sets of teeth, metal, W.A. gold and plated, also celluloid. JOHNSTONE, Dentist, Penzance.
OLD artificial teeth bought; cash by return post. Dent, 4 Chatsworth Road, Stratford, London.
"ANALYSIS of Food and Drugs," by Allen or Pearmain; 3s. edition. Apply, 69/55, Office of this Paper.
SHOP-ROUNDS, ointment-jars, etc.; must be reasonable. Drug-stores, 191 Queen's Road, Peckham.
FORMULA purchased, hair, skin, competition, etc.; 10s. each. W. LEWIS, 12 Shelden Street, London, W.
GLASS-FRONTED wallcase, mahogany, to stand on support, 81 in. by 9 in.; also "B.P. Martindale." MARCH, Torquay.
CHEAP line violet-powder wrappers, glazed paper, gilt letters. Samples and price to "E. B." (199/37), Office of this Paper.
COMPLETE fitting for Chemist's shop, counter, wallcase, wall fitting, dispensing-screen, desk, shop-rounds, etc. Address, 198/37, Office of this Paper.
PHARMACEUTICAL Formulas, 10, 20, 30 oz. shop-round plated, poisons, powder mixer and sifter. Condition and price to 199/17, Office of this Paper.